Statement of Basis

Permit to Construct No. P-2019.0023
Project ID 62230

Sonbyrd Industries, Inc
Emmett, Idaho

Facility ID 045-00005

Final

September 30, 2019
Zach Pierce
Permit Writer

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01.et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
acfm	actual cubic feet per minute
ASTM	American Society for Testing and Materials
Btu	British thermal units
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	continuous emission monitoring systems
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CMS	continuous monitoring systems
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent emissions
COMS	continuous opacity monitoring systems
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
gph	gallons per hour
gpm	gallons per minute
HAP	hazardous air pollutants
hr/yr	hours per consecutive 12 calendar month period
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pounds per hour
LS	Linear Spray Booth
LS1	Linear Spray Booth 1
m	meters
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operation and maintenance
PB	paint booth
PC	permit condition
PM	particulate matter
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
PW	process weight rate
Rules	*Rules for the Control of Air Pollution in Idaho*
scf	standard cubic feet

SIP	State Implementation Plan
SM	synthetic minor
SO_2	sulfur dioxide
SO_x	sulfur oxides
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar month period
TAP	toxic air pollutants
UH	Unit Heater
UO	UV Cure Oven
U.S.C.	United States Code
VOC	volatile organic compounds
$\mu g/m^3$	micrograms per cubic meter
WS1	Wood Shaping Activities

FACILITY INFORMATION

Description

SonByrd Industries, Inc. is an existing facility that manufactures and finishes furniture, cabinets, and counter tops. It is currently operating under PTC No. 045-00005 issued May 22nd, 2000. Permitted emission sources at the facility include three paint booths and a coating curing room primarily involved in applying stains and lacquer to cabinet doors. Two new unit heaters are proposed to be added to the permit as well as UV coating spray equipment with an associated make-up-air unit. The facility is also proposing to include three natural gas make-up-air heaters and seven natural gas unit heaters that are existing but weren't specifically included in the previous permit.

The main sources of emissions are natural gas combustion and coating.

Make-Up-Air Units and Unit Heaters

This facility has 13 natural gas units, old and new, at this facility to be incorporated in this permitting action. SonByrd will operate one new natural gas make-up-air unit for a total of four that supply outside air to the paint room. There are also two new natural gas unit heaters for a total of nine throughout the facility with four in Building 1, three in Building 2 and the two new units in the new building, Building 3. The size of the units range from 0.07 to 0.25 MMBtu/hr. SonByrd is estimating a heater use limit of 8,760 hours per year for emission calculations.

Coating

The coating operation is conducted in one of four enclosed spray booths that are located in an existing room inside Building 1. Three of the booths (PB1, PB2, LS1) are used for coating wood parts with traditional paint, stain and lacquer. The fourth booth (PB3) will be used for spraying wood parts with UV-cured coatings. An electric UV oven (UO1) will be used to cure the painted items from booth PB3. Exhaust fans draw air and paint fumes through the booths/oven and the exhaust filters, discharging through stacks on the roof of the buildings. Emissions from all the paint booth units are based on the paints used and their compositions.

The exhaust plenums in the spray booths are equipped with panels holding Paint Pockets Overspray Arrestors. In order to reduce paint use and emissions another way, Sonbyrd uses either Graco air-assisted airless (AAA) paint guns or Kremlin AAA paint guns in their various paint booths.

Wood Shaping

Shaping of wooden parts creates sawdust that is collected with vacuums and deposited into collection bins. The carrier air is filtered with cloth filter bags.

Emissions

Emissions are expected to occur from the following sources:

- 9 natural gas heater stacks/vents
- 4 make-up-air heater
- 4 paint booths
- 1 Cure Oven
- Wood Shaping

Permitting History

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

May 22, 2000	PTC No. 045-00005, Revised PTC, Permit status (A) but will become (S) upon issuance of this permit
December 28, 1999	PTC No.045-00005, Initial PTC, Permit status (S)

Application Scope

This PTC is for a modification at an existing minor facility.

The applicant has proposed to:

- Install and operate a new building with two unit heaters as well as UV coating spray equipment with an associated make-up-air unit in a currently permitted building.
- Modify its permit by making limits emissions-based rather than usage-based.
- Incorporate three natural gas make-up-air heaters and seven natural gas unit heaters that are existing but weren't specifically included in the previous permit.

Application Chronology

March 13, 2018	DEQ sent a notice to comply to the facility (No. BRO-NTC-2018-0001)
May 1, 2019	DEQ received an application fee.
May 6, 2019	DEQ received an application.
May 15 – May 30, 2019	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
May 14, 2019	DEQ determined that the application was incomplete.
June 17, 2019	DEQ received supplemental information from the applicant.
July 11, 2019	DEQ determined that the application was complete.
August 20, 2019	DEQ made available the draft permit and statement of basis for peer and regional office review.
August 30, 2019	DEQ made available the draft permit and statement of basis for applicant review.
September 26, 2019	DEQ received the permit processing fee.
September 30, 2019	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION

Source ID No.	Sources	Control Equipment	Emission Point ID No.
MAU1-MAU3	Make-Up-Air Units 1-3 Manufacture Date: 1990 Heat input rating: 0.1 MMBtu/hr Fuel: Natural Gas	None	None
MAU4	Make-Up-Air Unit 4 Manufacture Date: 2019 Heat input rating: 0.2 MMBtu/hr Fuel: Natural Gas		
UH1, UH2, UH4	Unit Heaters 1, 2, 4 Manufacturer: Heatcraft Inc. Model: UH-75 Manufacture Date: 1990 Heat input rating: 0.075 MMBtu/hr Fuel: Natural gas		
UH3	Unit Heater 3 Manufacturer: Nodine Manufacturing Co. Model: HD 75AH0134 "Hot Dawg" Manufacture Date: 1990 Heat input rating: 0.075 MMBtu/hr Fuel: Natural Gas		
UH5, UH6	Unit Heaters 5, 6 Manufacturer: Janitrol Model: UH-100-E2 Manufacture Date: 1990 Heat input rating: 0.1 MMBtu/hr Fuel: Natural Gas		
UH7	Unit Heater 7 Manufacturer: Janitrol Model: UH-70-E2 Manufacture Date: 1990 Heat input rating: 0.07 MMBtu/hr Fuel: Natural Gas		
UH8, UH9	Unit Heaters 8, 9 Manufacturer: Sterling Model: TF-250 Manufacture Date: 2018 Heat input rating: 0.25 MMBtu/hr Fuel: Natural Gas		
PB 1	Paint Spray Gun No. 1 Manufacturer: Kremlin Model: Xcite Gun type: Air-Assisted Airless Transfer efficiency: 86% Paint Spray Gun No. 2 Manufacturer: Graco Model: Airpro Gun type: Air-Assisted Airless Transfer efficiency: 65%	Completely Enclosed Booth with Exhaust Filters: Manufacturer: Paint Pockets Model: Paint Pockets Green PM Control efficiency: 99.43%	STCK1 Stack height: 20 ft Exit diameter: 18 in Exit flow rate: 3,000 CFM Exit temperature: Ambient

Source ID No.	Sources	Control Equipment	Emission Point ID No.
PB 2	Paint Spray Gun No. 1 Manufacturer: Kremlin Model: Xcite Gun type: Air-Assisted Airless Transfer efficiency: 86% Paint Spray Gun No. 2 Manufacturer: Graco Model: Airpro Gun type: Air-Assisted Airless Transfer efficiency: 65%	Completely Enclosed Booth with Exhaust Filters: Manufacturer: Paint Pockets Model: Paint Pockets Green PM Control efficiency: 99.43%	STCK2 Stack height: 20 ft Exit diameter: 24 in Exit flow rate: 6,000 CFM Exit temperature: Ambient
LS 1	Linear Spray Guns No. 1-2 Manufacturer: Graco Model: Airpro Gun type: Air-Assisted Airless Transfer efficiency: 65%	Completely Enclosed Booth with Exhaust Filters: Manufacturer: Paint Pockets Model: Paint Pockets Green PM Control efficiency: 99.43%	STCK3 Exit flow rate: 3,000 CFM Exit Temperature: Ambient
PB 3	Coating Spray Guns No. 1-6 Manufacturer: Kremlin Model: Airpro Gun type: Air-Assisted Airless Transfer efficiency: 86%	Completely Enclosed Booth with Exhaust Filters: Manufacturer: Paint Pockets Model: Paint Pockets Green PM Control efficiency: 99.43%	STCK4 Exit flow rate: 3,000 CFM Exit temperature: Ambient
UO1	UV Electric Cure Oven 1 Manufacturer: Holytek Model: KUV-901+G+D Manufacture Date: 1996	None	STCK5 Exit flow rate: 2,500 CFM Exit temperature: Ambient
WS1	Wood Shaping Activities Sawdust generated from wood shaping is collected and deposited in bins.	Baghouse Control with Cyclone	

Emissions Inventories

Potential to Emit

IDAPA 58.01.01 defines Potential to Emit as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is state or federally enforceable. Secondary emissions do not count in determining the potential to emit of a facility or stationary source.

Using this definition of Potential to Emit an emission inventory was developed for the Heating and Coating operations at the facility (see Appendix A) associated with this proposed project.

Emissions inventories were based on process information specific to the facility for this proposed project; natural gas combustion emission factors from AP-42 Chapter 1 Section 1.4, material safety data sheets (SDS), manufacturer specification sheets for spray booth filter efficiencies and spray gun transfer efficiencies, annual fuel usage of 13.484 MMscf/yr for combustion units, a wood product emission factor from Oregon DEQ, and projected annual coatings usage and formulations as represented in the application. A growth factor of 290% was assumed in calculating coating usages and sawdust production.

Uncontrolled Potential to Emit

Using the definition of Potential to Emit, uncontrolled Potential to Emit is then defined as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall **not** be treated as part of its design **since** the limitation or the effect it would have on emissions **is not** state or federally enforceable.

The uncontrolled Potential to Emit is used to determine if a facility is a "Synthetic Minor" source of emissions. Synthetic Minor sources are facilities that have an uncontrolled Potential to Emit for regulated air pollutants or HAP above the applicable Major Source threshold without permit limits.

The following table presents the uncontrolled Potential to Emit for regulated air pollutants as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations and the assumptions used to determine emissions for each emissions unit. For the coating and heating operation uncontrolled Potential to Emit is based upon a worst-case for operation of the heaters of 8,760 hr/yr and a 290% growth factor for coating usage.

Table 2 UNCONTROLLED POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	$PM_{10}/PM_{2.5}$	SO_2	NO_X	CO	VOC
	T/yr	T/yr	T/yr	T/yr	T/yr
Point Sources					
Booths	12.9	0.00	0.00	0.00	48.86
Natural Gas	0.05	0.004	0.67	0.57	0.037
Wood Shaping	0.61	0.00	0.00	0.00	0.00
Total, Point Sources	**13.56**	**0.004**	**0.67**	**0.57**	**48.90**

The following table presents the uncontrolled Potential to Emit for HAP pollutants as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations and the assumptions used to determine emissions for each emissions unit. For the coating and heating operation uncontrolled Potential to Emit is based upon a worst-case for operation of the heaters of 8,760 hr/yr (24 hr/day x 365 day/yr) and a 290% growth factor for coating usage. Then, the worst-case maximum HAP Potential to Emit was determined for the coating and heating operation.

Table 3 UNCONTROLLED POTENTIAL TO EMIT FOR HAZARDOUS AIR POLLUTANTS

Hazardous Air Pollutants	PTE (T/yr)
Arsenic	1.3E-06
Benzene	1.4E-05
Beryllium	8.1E-08
Cadmium	7.4E-06
Chromium	9.4E-06
Cobalt	5.7E-07
Cobalt 2-Ethylhexanoate	1.8E-04
Cumene	1.3E-03
Dichlorobenzene	8.1E-06
Ethylbenzene	0.22
Formaldehyde	2.3E-03
Hexane	0.012
Lead	3.4E-06
Manganese	2.6E-06
Mercury	1.8E-06
Methanol	3.36
Naphthalene	4.1E-06

Hazardous Air Pollutants	PTE (T/yr)
Nickel	1.4E-05
Polycyclic Organic Matter	8.7E-06
Selenium	1.6E-07
Toluene	8.36
Triethylamine	0.00
Xylene	9.99
Total	**21.95**

Pre-Project Potential to Emit

Pre-project Potential to Emit is used to establish the change in emissions at a facility as a result of this project.

The following table presents the pre-project potential to emit for all criteria pollutants from all emissions units at the facility as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 4 PRE-PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	$PM_{10}/PM_{2.5}$		SO_2		NO_X		CO		VOC	
	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Booths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20
Wood Shaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pre-Project Totals	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**20**

a) Controlled average emission rate in pounds per hour is a daily average, based on the proposed daily operating schedule and daily limits.
b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.

Post Project Potential to Emit

Post project Potential to Emit is used to establish the change in emissions at a facility and to determine the facility's classification as a result of this project. Post project Potential to Emit includes all permit limits resulting from this project.

The following table presents the post project Potential to Emit for criteria pollutants from all emissions units at the facility as determined by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 5 POST PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	$PM_{10}/PM_{2.5}$		SO_2		NO_X		CO		VOC	
	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]
Natural Gas	0.012	0.051	0.0009	0.004	0.15	0.67	0.13	0.57	0.008	0.037
Booths	0.147	0.643	0.00	0.00	0.00	0.00	0.00	0.00	11.2	70.00
Wood Shaping	0.008	0.024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Post Project Totals	**0.17**	**0.72**	**0.001**	**0.004**	**0.15**	**0.67**	**0.13**	**0.57**	**11.21**	**70.04**

a) Controlled average emission rate in pounds per hour is a daily average, based on the proposed daily operating schedule and daily limits.
b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.

Change in Potential to Emit

The change in facility-wide potential to emit is used to determine if a public comment period may be required and to determine the processing fee per IDAPA 58.01.01.225. The following table presents the facility-wide change in the potential to emit for criteria pollutants.

Table 6 CHANGES IN POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	$PM_{10}/PM_{2.5}$		SO_2		NO_X		CO		VOC	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Pre-Project Potential to Emit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	20
Post Project Potential to Emit	0.17	0.72	0.001	0.004	0.15	0.67	0.13	0.57	11.21	70.04
Changes in Potential to Emit	**0.17**	**0.72**	**0.001**	**0.004**	**0.15**	**0.67**	**0.13**	**0.57**	**11.21**	**50.04**

Non-Carcinogenic TAP Emissions

A summary of the estimated PTE for emissions increase of non-carcinogenic toxic air pollutants (TAP) is provided in the following table. Pre Project Emissions are based on the previous permit. The table uses the maximum daily emissions recorded and provided in the application to prove compliance with TAP screening emission levels (EL).

Pre- and post-project, as well as the change in, non-carcinogenic TAP emissions are presented in the following table:

Table 7 PRE- AND POST PROJECT POTENTIAL TO EMIT FOR NON-CARCINOGENIC TOXIC AIR POLLUTANTS

Non-Carcinogenic Toxic Air Pollutants	Pre-Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Post Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Change in 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Non-Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Acetone	0	119	119	119	No
Acrylic Acid	0	2	2	2	No
Aluminum - Metal and Oxide	0	0.667	0.667	0.667	No
Aluminum - Soluble Salts	0	0.133	0.133	0.133	No
n-Amyl Acetate	0	35.3	35.3	35.3	No
Antimony	0	0.033	0.033	0.033	No
Barium	0	0.033	0.033	0.033	No
Benzoyl Peroxide	0	0.333	0.333	0.333	No
2-Butoxyethanol (EGBE; Ethylene Glycol Monobutyl Ether)	0	8	8	8	No
2-Butoxyethyl Acetate	0	8.33	8.33	8.33	No
n-Butyl Acetate	0	47.3	47.3	47.3	No
tert-Butyl Acetate	0	63.3	63.3	63.3	No
n-Butyl Alcohol	0	10	10	10	No
Sec-Butyl Alcohol (2-Butanol)	0	20.3	20.3	20.3	No
Butyl Hydroxytoluene (2,6-Di-tert-butyl-p-cresol)	0	0.667	0.667	0.667	No
Calcium Carbonate (Limestone)	0	0.667	0.667	0.667	No
Calcium Sulfate (Gypsum)	0	0.667	0.667	0.667	No
Carbon Black	0	0.23	0.23	0.23	No
Chromium	0	0.033	0.033	0.033	No
Cobalt	0	0.0033	0.0033	0.0033	No
Copper	0	0.067	0.067	0.067	No

Non-Carcinogenic Toxic Air Pollutants	Pre-Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Post Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Change in 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Non-Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Cumene	0	16.3	16.3	16.3	No
Cyclohexane	0	70	70	70	No
Cyclohexanone	0	6.67	6.67	6.67	No
Diacetone Alcohol	0	16	16	16	No
Dibutyl Phthalate (DBP)	0	0.333	0.333	0.333	No
1,4-Dichlorobenzene	0	30	30	30	No
o-Dichlorobenzene	0	20	20	20	No
Diethyl Phthalate	0	0.333	0.333	0.333	No
Diisobutyl Ketone	0	0.533	0.533	0.533	No
Dimethylphthalate (DMP)	0	93.3	93.3	93.3	No
Diphenyl (Biphenyl)	0	125	125	125	No
Dipropylene Glycol Methyl Ether	0	29	29	29	No
Ethanolamine (2-Aminoethanol; Monoethanolamine)	0	0.846	0.846	0.846	No
Ethyl Acetate	0	1.67	1.67	1.67	No
Ethyl Alcohol	0	0.0033	0.0033	0.0033	No
Ethyl Benzene	0	0.067	0.067	0.067	No
Ethylene Glycol	0	16.3	16.3	16.3	No
Ethylenediamine (1,2-Diaminoethane)	0	70	70	70	No
Furfuryl Alcohol	0	2.67	2.67	2.67	No
Heptane (n-Heptane)	0	109	109	109	No
Hexamethylene Diisocyanate (d)	0	0.002	0.002	0.002	No
Hexane (n-Hexane)	0	12	12	12	No
Hydroquinone	0	0.133	0.133	0.133	No
Iron Oxide (Fe_2O_3)	0	0.333	0.333	0.333	No
Isobutyl Acetate	0	46.7	46.7	46.7	No
Isobutyl Alcohol	0	10	10	10	No
Isophorone Diisocyanate	0	0.006	0.006	0.006	No
Isopropyl Alcohol (Isopropanol)	0	65.3	65.3	65.3	No
Isopropyl Acetate	0	69.3	69.3	69.3	No
Kaolin	0	0.133	0.133	0.133	No
Lead	0	0.01366667	0.01366667	0.01366667	No
Manganese	0	0.333	0.333	0.333	No
Magnesite (Magnesium Carbonate)	0	0.667	0.667	0.667	No
Methacrylic Acid	0	4.67	4.67	4.67	No

Non-Carcinogenic Toxic Air Pollutants	Pre-Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Post Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Change in 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Non-Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Methanol	0	17.3	17.3	17.3	No
1-Methoxy-2-Propanol Acetate (PGMEA)	0	24	24	24	No
2-Methoxyethyl Acetate (EGMEA; Ethylene Glycol Monomethyl Ether Acetate)	0	1.6	1.6	1.6	No
Methyl Acetate	0	40.7	40.7	40.7	No
Methyl n-Amyl Ketone (Heptan-2-one)	0	15.7	15.7	15.7	No
Methyl Chloroform	0	127	127	127	No
Methyl Ethyl Ketone (MEK)	0	39.3	39.3	39.3	No
Methyl Isoamyl Ketone	0	16	16	16	No
Methyl Isobutyl Carbinol	0	6.93	6.93	6.93	No
Methyl Isobutyl Ketone (MIBK)	0	13.7	13.7	13.7	No
Methyl Methacrylate	0	27.3	27.3	27.3	No
o-Methylcyclohexanone	0	15.3	15.3	15.3	No
Methylene Bis (4-Cyclohexyl Isocyanate) (H12MDI; Dicyclohexylmethane 4,4'-Diisocyanate) [(d)]	0	0.007	0.007	0.007	No
Methylene Diisocyanate (MDI; 4,4'-Diphenylmethane Diisocyanate) [(d)]	0	0.003	0.003	0.003	No
Methyl Propyl Ketone (2-Pentanone)	0	46.7	46.7	46.7	No
Mica	0	0.2	0.2	0.2	No
Molybdenum	0	0.333	0.333	0.333	No
Naphthalene	0	3.33	3.33	3.33	No
Nonane	0	70	70	70	No
Pentane	0	118	118	118	No
Phenol	0	1.27	1.27	1.27	No
Phosphoric Acid	0	0.067	0.067	0.067	No
Portland Cement	0	0.667	0.667	0.667	No
Propionic Acid	0	2	2	2	No
n-Propyl Acetate	0	56	56	56	No
Propyl Alcohol	0	33.3	33.3	33.3	No
Selenium	0	0.013	0.013	0.013	No
Silica – Amorphous, including: • Diatomaceous Earth (uncalcined) • Precipitated Silica • Silica Gel	0	0.667	0.667	0.667	No

Non-Carcinogenic Toxic Air Pollutants	Pre-Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Post Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Change in 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Non-Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Silica - Crystalline - Cristobalite	0	0.0033	0.0033	0.0033	No
Silica - Crystalline Quartz & Fused Silica	0	0.0067	0.0067	0.0067	No
Sodium Hydroxide (Caustic Soda)	0	0.133	0.133	0.133	No
Stoddard Solvent	0	35	35	35	No
Styrene	0	6.67	6.67	6.67	No
Tetrahydrofuran	0	39.3	39.3	39.3	No
Toluene	0	25	25	25	No
Trichloroethylene (TCE)	0	17.93	17.93	17.93	No
Triethylamine	0	0.27	0.27	0.27	No
Trimethyl Benzene (Mixed and Individual Isomers)	0	8.2	8.2	8.2	No
2,2,4-Trimethylpentane	0	23.3	23.3	23.3	No
Vinyl Acetate	0	2.3	2.3	2.3	No
VM&P Naphtha (Petroleum Ether; Ligroin)	0	91.3	91.3	91.3	No
Xylene (o-, m-, p-isomers)	0	29	29	29	No
Zinc	0	0.667	0.667	0.667	No
Zinc Oxide	0	0.667	0.667	0.667	No
Zirconium	0	0.333	0.333	0.333	No

All changes in emissions rates for non-carcinogenic TAP were below EL (screening emissions level) as a result of this project. Therefore, modeling is not required for any non-carcinogenic TAP because none of the 24-hour average non-carcinogenic screening ELs identified in IDAPA 58.01.01.585 were exceeded.

Carcinogenic TAP Emissions

A summary of the estimated PTE for emissions increase of carcinogenic toxic air pollutants (TAP) is provided in the following table.

Table 8 PRE- AND POST PROJECT POTENTIAL TO EMIT FOR CARCINOGENIC TOXIC AIR POLLUTANTS

Carcinogenic Toxic Air Pollutants	Pre-Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Post Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Change in Annual Average Emissions Rates for Units at the Facility (lb/hr)	Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Acetaldehyde	0	0.003	0.003	0.003	No
Acrylamide	0	0.0000051	0.0000051	0.0000051	No
Arsenic	0	0.00000031	0.00000031	0.0000015	No
Benzene	0	0.0008	0.0008	0.0008	No
Benzo(a)pyrene	0	0.000002	0.000002	0.000002	No
Beryllium	0	0.000000018	0.000000018	0.000028	No

Carcinogenic Toxic Air Pollutants	Pre-Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Post Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Change in Annual Average Emissions Rates for Units at the Facility (lb/hr)	Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Bis (2-Ethylhexyl) Phthalate (DEHP)	0	0.028	0.028	0.028	No
Cadmium	0	0.0000017	0.0000017	0.0000037	No
Carbon Tetrachloride	0	0.00044	0.00044	0.00044	No
Chloroform	0	0.00028	0.00028	0.00028	No
Chromium (VI)	0	0.00000056	0.00000056	0.00000056	No
Formaldehyde	0	0.00051	0.00051	0.00051	No
3-Methylchloranthene	0	0.0000000028	0.0000000028	0.0000025	No
Methylene Chloride (Dichloromethane)	0	0.0016	0.0016	0.0016	No
Nickel	0	0.000027	0.000027	0.000027	No
Tetrachloroethylene (PCE; Perchloroethylene)	0	0.013	0.013	0.013	No
Vinyl Chloride	0	0.00094	0.00094	0.00094	No

a. Polycyclic Organic Matter (POM) is considered as one TAP comprised of: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, chrysene, indeno(1,2,3-cd)pyrene, benzo(a)pyrene. The total is compared to benzo(a)pyrene.

All changes in emissions rates for carcinogenic TAP were below EL (screening emissions level) as a result of this project. Therefore, modeling is not required for any carcinogenic TAP because none of the annual average carcinogenic screening ELs identified in IDAPA 58.01.01.586 were exceeded.

Post Project HAP Emissions

The following table presents the post project potential to emit for HAP pollutants from all emissions units at the facility as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 9 HAZARDOUS AIR POLLUTANTS EMISSIONS POTENTIAL TO EMIT SUMMARY

Hazardous Air Pollutants	PTE (T/yr)
Arsenic	1.3E-06
Benzene	1.4E-05
Beryllium	8.1E-08
Cadmium	7.4E-06
Chromium	9.4E-06
Cobalt	5.7E-07
Cobalt 2-Ethylhexanoate	1.8E-04
Cumene	1.3E-03
Dichlorobenzene	8.1E-06
Ethylbenzene	0.22
Formaldehyde	2.3E-03
Hexane	0.012
Lead	3.4E-06
Manganese	2.6E-06
Mercury	1.8E-06

Hazardous Air Pollutants	PTE (T/yr)
Methanol	3.36
Naphthalene	4.1E-06
Nickel	1.4E-05
Polycyclic Organic Matter	8.7E-06
Selenium	1.6E-07
Toluene	8.36
Triethylamine	0.00
Xylene	9.99
Totals	**21.95**

Ambient Air Quality Impact Analyses

The estimated emission rates of PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, VOC, HAP, and TAP from this project were below applicable screening emission levels (EL) and published DEQ modeling thresholds established in IDAPA 58.01.01.585-586 and in the State of Idaho Air Quality Modeling Guideline[1]. Refer to the Emissions Inventories section for additional information concerning the emission inventories.

The applicant has demonstrated pre-construction compliance to DEQ's satisfaction that emissions from this facility will not cause or significantly contribute to a violation of any ambient air quality standard. The applicant has also demonstrated pre-construction compliance to DEQ's satisfaction that the emissions increase due to this permitting action will not exceed any acceptable ambient concentration (AAC) or acceptable ambient concentration for carcinogens (AACC) for toxic air pollutants (TAP). A summary of the Ambient Air Impact Analysis for TAP is provided in Appendix A.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Gem County, which is designated as attainment or unclassifiable for $PM_{2.5}$, PM_{10}, SO_2, NO_2, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

Facility Classification

The AIRS/AFS facility classification codes are as follows:

For HAPs (Hazardous Air Pollutants) Only:

A = Use when any one HAP has permitted emissions > 10 T/yr or if the aggregate of all HAPS (Total HAPs) has permitted emissions > 25 T/yr.

SM80 = Use if a synthetic minor (uncontrolled HAPs emissions are > 10 T/yr or if the aggregate of all uncontrolled HAPs (Total HAPs) emissions are > 25 T/yr and permitted emissions fall below applicable major source thresholds) and the permit sets limits > 8 T/yr of a single HAP or ≥ 20 T/yr of Total HAPs.

SM = Use if a synthetic minor (uncontrolled HAPs emissions are > 10 T/yr or if the aggregate of all uncontrolled HAPs (Total HAPs) emissions are > 25 T/yr and permitted emissions fall below applicable major source thresholds) and the permit sets limits < 8 T/yr of a single HAP and/or < 20 T/yr of Total HAPs.

B = Use when the potential to emit (i.e. uncontrolled emissions and permitted emissions) are below the 10

[1] Criteria pollutant thresholds in Table 2, State of Idaho Guideline for Performing Air Quality Impact Analyses, Doc ID AQ-011, September 2013.

and 25 T/yr HAP major source thresholds.

UNK = Class is unknown.

For All Other Pollutants:

A = Use when permitted emissions of a pollutant are > 100 T/yr.

SM80 = Use if a synthetic minor for the applicable pollutant (uncontrolled emissions are > 100 T/yr and permitted emissions fall below 100 T/yr) and permitted emissions of the pollutant are ≥ 80 T/yr.

SM = Use if a synthetic minor for the applicable pollutant (uncontrolled emissions are > 100 T/yr and permitted emissions fall below 100 T/yr) and permitted emissions of the pollutant are < 80 T/yr.

B = Use when the potential to emit (i.e. uncontrolled emissions and permitted emissions) are below the 100 T/yr major source threshold.

UNK = Class is unknown.

Table 10 REGULATED AIR POLLUTANT FACILITY CLASSIFICATION

Pollutant	Uncontrolled PTE (T/yr)	Permitted PTE (T/yr)	Major Source Thresholds (T/yr)	AIRS/AFS Classification
PM	13.56	0.72	**100**	B
PM_{10}	13.56	0.72	**100**	B
$PM_{2.5}$	13.56	0.72	**100**	B
SO_2	0.004	0.004	**100**	B
NO_X	0.67	0.67	**100**	B
CO	0.57	0.57	**100**	B
VOC	48.9	70.04	**100**	B
HAP (single)	9.99	9.99	**10**	B
Total HAPs	21.95	21.95	**25**	B

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201 ..... Permit to Construct Required

The permittee has requested that a PTC be issued to the facility for the proposed new emissions sources along with proposing new emission limits for the facility. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

Tier II Operating Permit (IDAPA 58.01.01.401)

IDAPA 58.01.01.401 ..... Tier II Operating Permit

The application was submitted for a permit to construct (refer to the Permit to Construct section), and an optional Tier II operating permit has not been requested. Therefore, the procedures of IDAPA 58.01.01.400–410 were not applicable to this permitting action.

Visible Emissions (IDAPA 58.01.01.625)

IDAPA 58.01.01.625 ..... Visible Emissions

The sources of PM emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity. This requirement is assured by Permit Condition 2.5.

Standards for New Sources (IDAPA 58.01.01.677)

IDAPA 58.01.01.677 ..... Standards for Minor and Existing Sources

The fuel burning equipment located at this facility, with a maximum rated input of less than ten (10) million BTU per hour, are subject to a particulate matter limitation of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume when combusting gaseous fuels. Fuel-Burning Equipment is defined as any furnace, boiler, apparatus, stack and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer. This requirement is assured by Permit Condition 3.5.

Particulate Matter – New Equipment Process Weight Limitations (IDAPA 58.01.01.701)

IDAPA 58.01.01.701 ..... Particulate Matter – New Equipment Process Weight Limitations

IDAPA 58.01.01.700 through 703 set PM emission limits for process equipment based on when the piece of equipment commenced operation and the piece of equipment's process weight (PW) in pounds per hour (lb/hr). IDAPA 58.01.01.701 and IDAPA 58.01.01.702 establish PM emission limits for equipment that commenced operation on or after October 1, 1979, and for equipment operating prior to October 1, 1979, respectively.

For equipment that commenced operation on or after October 1, 1979, the PM allowable emission rate (E) is based on one of the following equations:

IDAPA 58.01.01.701.01.a: If PW is $< 9{,}250$ lb/hr; $E = 0.045\ (PW)^{0.60}$

IDAPA 58.01.01.701.01.b: If PW is $\geq 9{,}250$ lb/hr; $E = 1.10\ (PW)^{0.25}$

For equipment that commenced prior to October 1, 1979, the PM allowable emission rate is based on one of the following equations:

IDAPA 58.01.01.702.01.a: If PW is $< 17{,}000$ lb/hr; $E = 0.045\ (PW)^{0.60}$

IDAPA 58.01.01.702.01.b: If PW is $\geq 17{,}000$ lb/hr; $E = 1.12\ (PW)^{0.27}$

Because these units started up after October 1, 1979, the Allowable Particulate Emissions, E, is calculated as follows:

$E = 0.045\ (PW)^{0.60}$

The weight of sawdust collected is 1,162.5 lb/hr (9,300 lbs per day/8 work hours). Therefore the allowable particulate emission from the entire source is calculated as:

$E = 0.045 \times (1{,}162.5)^{0.60} \rightarrow E = 3.11$ lb/hr

As presented previously in the Emissions Inventories Section of this evaluation the post project PTE for this emissions unit is 0.17 lb-PM_{10}/hr. Assuming PM is 50% PM_{10} means that PM emissions will be 0.34 lb-PM/hr (0.17 lb-PM_{10}/hr ÷ 0.5 lb-PM_{10}/lb-PM). Therefore, compliance with this requirement has been demonstrated.

Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

IDAPA 58.01.01.301 ..... Requirement to Obtain Tier I Operating Permit

Post project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for (i.e., PM_{10}, SO_2, NO_X, CO, VOC, and HAP) or 10 tons per year for any one HAP or 25 tons per year for all HAP combined as demonstrated previously in the Emissions Inventories Section of this analysis. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 do not apply.

PSD Classification (40 CFR 52.21)

40 CFR 52.21 ..... Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1). This section defines a Major stationary source as:

Any of the following stationary sources of air pollutants which emits, or has the potential to emit, 100 tons per year or more of any regulated NSR pollutant: Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), kraft pulp mills, Portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants (with thermal dryers), primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants (which does not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140), fossil-fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants, and charcoal production plants, or

Notwithstanding the stationary source size specified in paragraph (b)(1)(i) of this section, any stationary source which emits, or has the potential to emit, 250 tons per year or more of a regulated NSR pollutant; or

Any physical change that would occur at a stationary source not otherwise qualifying under paragraph (b)(1) of this section, as a major stationary source, if the changes would constitute a major stationary source by itself.

This facility is not one of the facilities designated and does not have facility-wide emissions for any criteria pollutant that exceed 250 T/yr. In addition, the facility is not undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore, in accordance with 40 CFR 52.21(a)(2), the PSD requirements do not apply.

NSPS Applicability (40 CFR 60)

The facility is not subject to any NSPS requirements 40 CFR Part 60.

NESHAP Applicability (40 CFR 61)

The facility is not subject to any NESHAP requirements in 40 CFR 61.

MACT/GACT Applicability (40 CFR 63)

The facility is not subject to any MACT standards in 40 CFR Part 63.

The following standard is not applicable, however if the Five Target HAPs are introduced to the facility then this federal regulation could be applicable to the facility.

40 CFR 63, Subpart HHHHHH ..... *National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources*

§ 63.11170 ..... *Am I subject to this subpart?*

(a) You are subject to this subpart if you operate an area source of HAP as defined in paragraph (b) of this section, including sources that are part of a tribal, local, State, or Federal facility and you perform one or more of the activities in paragraphs (a)(1) through (3) of this section:

(1) Perform paint stripping using MeCl for the removal of dried paint (including, but not limited to, paint, enamel, varnish, shellac, and lacquer) from wood, metal, plastic, and other substrates.

The facility does not use MeCl to remove paint; therefore this subpart is not applicable.

(2) Perform spray application of coatings, as defined in §63.11180, to motor vehicles and mobile equipment including operations that are located in stationary structures at fixed locations, and mobile repair and refinishing operations that travel to the customer's location, except spray coating applications that meet the definition of facility maintenance in §63.11180. However, if you are the owner or operator of a motor vehicle or mobile equipment surface coating operation, you may petition the Administrator for an exemption from this subpart if you can demonstrate, to the satisfaction of the Administrator, that you spray apply no coatings that contain the target HAP, as defined in §63.11180. Petitions must include a description of the coatings that you spray apply and your certification that you do not spray apply any coatings containing the target HAP. If circumstances change such that you intend to spray apply coatings containing the target HAP, you must submit the initial notification required by 63.11175 and comply with the requirements of this subpart.

The facility does not spray coatings on motor vehicles or mobile equipment; therefore this subpart is not applicable.

(3) Perform spray application of coatings that contain the target HAP, as defined in §63.11180, to a plastic and/or metal substrate on a part or product, except spray coating applications that meet the definition of facility maintenance or space vehicle in §63.11180.

The facility does not currently use any coatings containing any of the target metal HAPs on plastic or metal substrate; therefore this subpart is not applicable.

Permit Conditions Review

This section describes the permit conditions for this initial permit or only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

Modifications to Past Permit Conditions

Existing Permit Condition 1.1

Volatile Organic Compound (VOC) emissions from the spray booth stacks shall not exceed any corresponding emission rate limits listed in Appendix A of this permit.

STACK DESCRIPTION	VOC
	T/yr
Spray Booths	20.0

Revised Permit Condition 2.2

The emissions from the Paint Booths shall not exceed any corresponding emissions rate limits listed in Table 2.2.

Source Description	$PM_{2.5}/PM_{10}$ [b]	VOC[c]	Individual HAP[d][e]	Total HAP[d][f]
	T/yr [g]	T/yr [g]	T/yr [g]	T/yr [g]
Booths[h]	0.643	70.00	9.99	21.95

This permit condition has been revised, due to the facility's request, to allow the facility have emission-based limits instead of throughput limits. This permit condition gives the facility more flexibility in coating usage but requires more intensive recordkeeping.

This revised permit condition establishes emission limits for $PM_{2.5}$, VOC, HAP, and TAP emissions. These limits were relied upon to limit HAP and VOC emissions below major source thresholds and to demonstrate compliance with BRC levels for PM2.5 and PM10. Compliance is assured by creating Coating Scenarios (Permit Condition 2.6) that use daily estimates of pollutant emission rates (Permit Condition 2.7 and 2.9) based on maintained material purchase records (Permit Condition 2.17). The facility requested a VOC permit limit of 70 T/yr to allow for more flexibility for coatings to use. The facility demonstrated that their current usage meets that limit easily.

Existing Permit Condition 2.1

The Permittee shall use the spray booths when applying stain or lacquer.

Revised Permit Condition 2.13

All coating at this facility, including application of primer, shall be conducted inside the booth with filters in place, fan(s) operating, and door(s) closed.

All coating shall be conducted with a HVLP spray gun with a minimum 65% transfer efficiency.

The permittee shall install, maintain, and operate according to the manufacturer's specifications and recommendations, a spray booth filter system with a minimum capture efficiency of 96% for PM emissions.

This permit condition has been revised to that the booths and the control technology are used properly throughout the coating process.

Deleted Permit Condition 2.2

The Permittee shall use a maximum of 2,000 gallons of stain (VOC content less than or equal to 7.05 lbs VOC/gal) and 4,000 gallons of lacquer (VOC content less than or equal to 6.1 lbs VOC/gal) per any consecutive 4-quarter period, where a quarter is defined as three (3) consecutive calendar months.

This permit condition has been deleted to move the facility to emission-based limits from the previous throughput limits.

Permit Scope; Permit Section 1

This section indicates that this is a modified permit to construct to change to emission based limits and factor in equipment for coating. This section also includes a list of regulated sources.

Paint Booth Units; Permit Section 2

Permit Condition 2.1 describes the process of the coating operations and the control technology.

Table 2.1 summarizes the features of the coating operations.

Permit Condition 2.2 establishes the emission limits for the coating operations. These limits are formulated from past usage rates of currently used coatings with a growth factor. These emission based limits will allow the facility to have various usage rates and various coatings as long as their emissions are under these limits.

Permit Condition 2.3 establishes the opacity requirements in accordance with IDAPA 58.01.01.625.

Permit Condition 2.4 establishes the odor requirements in accordance with IDAPA 58.01.01.776.

Permit Condition 2.5 states that the facility must propose a new usage scenario that meets the permit's emission requirements each time they want to change their coating usage or add new coatings. The scenario must demonstrate compliance with the emission limits in order to be used. Therefore, emission estimates must be calculated for each pollutant.

Permit Condition 2.6 states how TAP emissions are to be estimated for the coating usage scenarios to show compliance.

Permit Condition 2.7 states how TAP compliance is demonstrated in comparison to the rules and levels set in IDAPA 58.01.01.585 and IDAPA 58.01.01.586. Table 2.3 is the appropriate list of TAPs typically found in coating operations.

Permit Condition 2.8 states how emission limit compliance is demonstrated in comparison to the limits set in

permit condition 2.2.

Permit Condition 2.9 states the operation requirements for the paint booth filters.

Permit Condition 2.10 states the facility must develop procedures to operate and inspect the filter systems.

Permit Condition 2.11 prohibits the use of MeCl to remove paint at the facility.

Permit Condition 2.12 is operating requirement for the use of spray guns and spray booth filter systems.

Permit Condition 2.13 is a recordkeeping requirement to demonstrate compliance with the Emission Limits Permit Condition by keeping records of coating material usage.

Permit Condition 2.14 is a monitoring requirement to demonstrate compliance with the Emission Limits Permit Condition by keeping records of the coating usage scenarios used.

Permit Condition 2.15 is a recordkeeping requirement to demonstrate compliance with the Emission Limits Permit Condition by keeping the purchase records and data sheets for the materials used.

Permit Condition 2.16 is a reporting requirement to demonstrate compliance with the Emission Limits Permit Condition by submitting new usage scenarios used throughout the year.

Permit Condition 2.17 is a recordkeeping requirement to demonstrate compliance with the Odors permit condition.

Permit Condition 2.18 is a recordkeeping requirement to demonstrate compliance with the Spray Gun and Spray Booth Filter System Permit Condition.

Permit Condition 2.19 is a standard recordkeeping requirement to demonstrate compliance with the Emission Limits Permit Condition.

Natural Gas Units; Permit Section 3

Permit Condition 3.1 describes the operations of combustion using natural gas.

Table 3.1 summarizes the features of the natural gas units.

Permit Condition 3.2 establishes the emission limits for the natural gas units.

Permit Condition 3.3 establishes the opacity requirements in accordance with IDAPA 58.01.01.625.

Permit Condition 3.4 specifies the grain loading for the specific fuel burning equipment listed in section 4 of the permit.

Permit Condition 3.5 specifies the annual natural gas usage limit proposed by the facility.

Permit Condition 3.6 specifies the fuel type to be combusted in the facility.

Permit Condition 3.7 is a monitoring requirement to demonstrate compliance with the Annual Natural Gas Usage Limit Permit Condition.

Wood Shaping; Permit Section 4

Permit Condition 4.1 describes the operations of wood shaping and the control of sawdust.

Table 4.1 summarizes the features of the wood shaping operations.

Permit Condition 4.2 establishes the sawdust production limit for the wood shaping activities based on maximum daily production, operation time, and a growth factor.

Permit Condition 4.3 is an operating requirement for the use of the baghouse system.

Permit Condition 4.4 is a monitoring requirement requiring the production of sawdust to be recorded to demonstrate compliance with the production limit.

General Provisions; Permit Section 5

Initial Permit Condition 5.1

The duty to comply general compliance provision requires that the permittee comply with all of the permit terms and conditions pursuant to Idaho Code §39-101.

Initial Permit Condition 5.2

The maintenance and operation general compliance provision requires that the permittee maintain and operate all treatment and control facilities at the facility in accordance with IDAPA 58.01.01.211.

Initial Permit Condition 5.3

The obligation to comply general compliance provision specifies that no permit condition is intended to relieve or exempt the permittee from compliance with applicable state and federal requirements, in accordance with IDAPA 58.01.01.212.01.

Initial Permit Condition 5.4

The inspection and entry provision requires that the permittee allow DEQ inspection and entry pursuant to Idaho Code §39-108.

Initial Permit Condition 5.5

The permit expiration construction and operation provision specifies that the permit expires if construction has not begun within two years of permit issuance or if construction has been suspended for a year in accordance with IDAPA 58.01.01.211.02.

Initial Permit Condition 5.6

The notification of construction and operation provision requires that the permittee notify DEQ of the dates of construction and operation, in accordance with IDAPA 58.01.01.211.01 and 211.03.

Initial Permit Condition 5.7

The performance testing notification of intent provision requires that the permittee notify DEQ at least 15 days prior to any performance test to provide DEQ the option to have an observer present, in accordance with IDAPA 58.01.01.157.03.

Initial Permit Condition 5.8

The performance test protocol provision requires that any performance testing be conducted in accordance with the procedures of IDAPA 58.01.01.157, and encourages the permittee to submit a protocol to DEQ for approval prior to testing.

Initial Permit Condition 5.9

The performance test report provision requires that the permittee report any performance test results to DEQ within 60 days of completion, in accordance with IDAPA 58.01.01.157.04-05.

Initial Permit Condition 5.10

The monitoring and recordkeeping provision requires that the permittee maintain sufficient records to ensure compliance with permit conditions, in accordance with IDAPA 58.01.01.211.

Initial Permit Condition 5.11

The excess emissions provision requires that the permittee follow the procedures required for excess emissions events, in accordance with IDAPA 58.01.01.130-136.

Initial Permit Condition 5.12

The certification provision requires that a responsible official certify all documents submitted to DEQ, in accordance with IDAPA 58.01.01.123.

Initial Permit Condition 5.13

The false statement provision requires that no person make false statements, representations, or certifications, in accordance with IDAPA 58.01.01.125.

Initial Permit Condition 5.14

The tampering provision requires that no person render inaccurate any required monitoring device or method, in accordance with IDAPA 58.01.01.126.

Initial Permit Condition 5.15

The transferability provision specifies that this permit to construct is transferable, in accordance with the procedures of IDAPA 58.01.01.209.06.

Initial Permit Condition 5.16

The severability provision specifies that permit conditions are severable, in accordance with IDAPA 58.01.01.211.

PUBLIC REVIEW

Public Comment Opportunity

An opportunity for public comment period on the application was provided in accordance with IDAPA 58.01.01.209.01.c or IDAPA 58.01.01.404.01.c. During this time, there was not a request for a public comment period on DEQ's proposed action. Refer to the chronology for public comment opportunity dates.

APPENDIX A – EMISSIONS INVENTORIES

Sonbyrd Industries
Emmett, ID

Table 2-3: Natural Gas Combustion Emissions

Natural Gas Heater Duty Total =

1.57 MMBtu/hr ÷ 1,020 MMBtu/MMscf = **1.54E-03 MMscf/hr**

Fuel Use:
0.037 MMscf/day
13.484 MMscf/year

Operating Assumptions:
24 hr/day
8,760 hr/yr [3]

Criteria Air Pollutants	Emission Factor[1]	Emissions	
	lb/MMscf	lb/hr	T/yr
NO_2	100	0.15	0.67
CO	84	0.13	0.57
PM_{10}	7.6	0.012	0.05
$PM_{2.5}$	7.6	0.012	0.05
SO_2	0.6	9.2E-04	4.0E-03
VOC	5.5	8.5E-03	3.7E-02
Lead	0.0005	7.7E-07	3.4E-06
		5.5E-04	lb/month
Total Criteria Emissions (ton/yr) =			**1.33**

Greenhouse Gas Emissions	
$CO_2 = 1 \times 10^{-3}$ * MMBTU Gas * 53.06 kg CO_2/MMBTU	
CO_2 =	730 Metric Tons/year
$CH_4 = 1 \times 10^{-3}$ * MMBTU Gas * 0.001 kg CH_4/MMBTU	
CH_4 =	0.014 Metric Tons/year
$N_2O = 1 \times 10^{-3}$ * MMBTU Gas * 0.0001 kg N_2O/MMBTU	
N_2O =	0.001 Metric Tons/year
Total $CO_2e = CO_2 + (CH_4 * 25) * (N_2O * 298)$	
CO_2e =	**730 Metric Tons/year**

Hazardous & Toxic Air Pollutants (HAP & TAP)	Emission Factor[1]	Emissions		Modeling Threshold — TAP Screening Emission Level	Modeling Required?
	lb/MMscf	lb/hr[2]	T/yr		
PAH HAPs					
2-Methylnaphthalene	2.40E-05	**3.69E-08**	1.6E-07	9.1E-05 lb/hr	No
3-Methylchloranthrene	1.80E-06	**2.77E-09**	1.2E-08	2.5E-06 lb/hr	No
Acenaphthene	1.80E-06	**2.77E-09**	1.2E-08	9.1E-05 lb/hr	No
Acenaphthylene	1.80E-06	**2.77E-09**	1.2E-08	9.1E-05 lb/hr	No
Anthracene	2.40E-06	**3.69E-09**	1.6E-08	9.1E-05 lb/hr	No
Benzo(a)anthracene	1.80E-06	**2.77E-09**	1.2E-08		See POM
Benzo(a)pyrene	1.20E-06	**1.85E-09**	8.1E-09	2.0E-06 lb/hr	See POM
Benzo(b)fluoranthene	1.80E-06	**2.77E-09**	1.2E-08		See POM
Benzo(g,h,i)perylene	1.20E-06	**1.85E-09**	8.1E-09	9.1E-05 lb/hr	No
Benzo(k)fluoranthene	1.80E-06	**2.77E-09**	1.2E-08		See POM
Chrysene	1.80E-06	**2.77E-09**	1.2E-08		See POM
Dibenzo(a,h)anthracene	1.20E-06	**1.85E-09**	8.1E-09		See POM
Fluoranthene	3.00E-06	**4.62E-09**	2.0E-08	9.1E-05 lb/hr	No
Fluorene	2.80E-06	**4.31E-09**	1.9E-08	9.1E-05 lb/hr	No
Indeno(1,2,3-cd)pyrene	1.80E-06	**2.77E-09**	1.2E-08		See POM
Naphthalene	6.10E-04	9.39E-07	4.1E-06	3.33 lb/hr	No
Naphthalene	6.10E-04	**9.39E-07**	4.1E-06	9.1E-05 lb/hr	No
Phenanathrene	1.70E-05	**2.62E-08**	1.1E-07	9.1E-05 lb/hr	No
Pyrene	5.00E-06	**7.70E-09**	3.4E-08	9.1E-05 lb/hr	No
Polycyclic Org. Matter (POM, 7-PAH Group)		**1.75E-08**	**7.7E-08**	2.0E-06 lb/hr	No
Non-PAH HAPs					
Benzene	2.10E-03	**3.23E-06**	1.4E-05	8.0E-04 lb/hr	No
Dichlorobenzene	1.20E-03	1.85E-06	8.1E-06	20 lb/hr	No
Formaldehyde	7.50E-02	**1.15E-04**	5.1E-04	5.1E-04 lb/hr	No
Hexane	1.80E+00	2.77E-03	1.2E-02	12 lb/hr	No
Toluene	3.40E-03	5.23E-06	2.3E-05	25 lb/hr	No
Non-HAP Organic Compounds					
Pentane	2.60E+00	4.00E-03	1.8E-02	118 lb/hr	No
Metals (HAPs)					
Arsenic	2.00E-04	**3.08E-07**	1.3E-06	1.5E-06 lb/hr	No
Barium	4.40E-03	6.77E-06	3.0E-05	0.033 lb/hr	No
Beryllium	1.20E-05	**1.85E-08**	8.1E-08	2.8E-05 lb/hr	No
Cadmium	1.10E-03	**1.69E-06**	7.4E-06	3.7E-06 lb/hr	No
Chromium	1.40E-03	2.15E-06	9.4E-06	0.033 lb/hr	No
Cobalt	8.40E-05	1.29E-07	5.7E-07	0.0033 lb/hr	No
Copper	8.50E-04	1.31E-06	5.7E-06	0.013 lb/hr	No
Manganese	3.80E-04	5.85E-07	2.6E-06	0.067 lb/hr	No
Mercury	2.60E-04	4.00E-07	1.8E-06	0.003 lb/hr	No
Molybdenum	1.10E-03	1.69E-06	7.4E-06	0.333 lb/hr	No
Nickel	2.10E-03	**3.23E-06**	1.4E-05	2.7E-05 lb/hr	No
Selenium	2.40E-05	3.69E-08	1.6E-07	0.013 lb/hr	No
Vanadium	2.30E-03	3.54E-06	1.6E-05	0.003 lb/hr	No
Zinc	2.90E-02	4.46E-05	2.0E-04	0.667 lb/hr	No
Total HAP Emissions (ton/yr) =			0.013		

Notes:
1. Emission factors taken from AP-42, Section 1.4 *Natural Gas Combustion* (7/98)
2. TAPs lb/hr emissions are 24-hour averages unless shown in bold. Bold emissions are annual averages for carcinogens.
3. Booth Make-up Air heater is used only during cold weather, so actual on-line rating is significantly less.

Table 3-1: Paint Room Emission Calculations

CAS #	Ingredient	TAP	HAP	Pro Precat Satin Clear	Vinyl BRE	Hi-Build Kit White	White Precat Primer	Gray Precat Primer	Graphite	Pro Precat Satin White
	Manufacturer			Rodda	Sherwin	Sherwin	Rodda	Rodda	Sherwin	Rodda
				95460020	T77FV20	T77HXW10913	95472100	??	T77HXA12911	95475120
100-41-4	Ethylbenzene	yes								
1047-16-1	Quinacridone									
107-98-2	Methoxy 2-propanol									
108-10-1	4-methylpentan-2-one									
108-32-7	4-Methyl 1.3-Dioxolan 2-one									
108-65-6	1-Methoxy 2-Propanol Acetate				2.85	6			6	
108-67-8	1-3-5 Trimethylbenzene									
108-88-3	Toluene	yes	1.00	5		1.4	15.50	15.50	1	5.62
111-76-2	2-Butoxyethanol	yes								
117-81-7	bis(2-ethylhexl)hthalate		1.00	5			1.90	1.90		2.30
119-61-9	Benzophenome									
123.42-2	Diacetone Alcohol	yes								
123-86-4	n-Butyl Acetate	yes	10.00	30	18.76	24	16.15	16.15	26	18.20
1245638-61-2	2-Propenic Acid									
12713-03-0	Umber									
1309-37-1	Iron Oxide									
1330-20-7	Xylene	yes	10.00	30		0.3			0.3	
1332-58-7	Kaolin	yes								
1333-86-4	Carbon Black	Yes							1	
13463-67-7	Titanium Dioxide					25			5	
136-51-6	Calcium 2-Ethylhexanoate									
136-52-7	Cobalt 2-Ethylhexanoate									
141-78-6	Ethyl Acetate									
14807-96-7	Talc									
14808-60-7	Crystalline Silica, powder	yes								
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate									
1569-01-3	Propoxy 2-propanol									
15956-58-8	Manganese 2-Ethylhexanoate									
28961-43-5	Timethylolpropane Ethoxylate Triacrylate									
50-00-0	Formaldehyde	yes				0.014			0.014	
526-73-8	1,2,3-Trimethylbenzene									
64-17-5	Ethanol Alchol	yes			7.57	8	12.47	12.47	10	
64742-47-8	Light Aliphatic Hydrocarbon Solvent									
64742-48-9	Heavy Petroleum Naphtha/Mineral Spirits									
64742-82-1	heavy aliphatic Solvent								0.3	
64742-88-7	Med. Aliphatic hydrocarbon Solvent									
64742-89-8	Lt Aliphatic Hydrocarbon Solvent									
64742-95-6	Light Aromatic hydrocarbons					0.3			0.3	
64742-52-5	Heavy Naphthenic Petroleum Oil									
67-56-1	Methanol	yes	5.00	10		2	2.00	2.00		4.74

Table 3-1: Paint Room Emission Calculations

67-63-0	2-Propanol	yes			3.46	3			4	
67-64-1	Acetone	yes	10.00	30	38.99				5	8.70
68002-18-6	Isobutylated urea-Formaldehyde Polymer				1.28	3			3	
68186-41-4	Phosphoric Acid Ester Salt									
70657-70-4	2-Methoxy-1-Prppanol Acetate									
71-23-8	Propan-1-oL									
71-36-3	1- Butanol	yes	1.00	5		6			5	
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide									
7631-86-9	Amorphous Silica	yes				3			3	
78-83-1	2- Methyl 1-propanol		1.00	5	2.31	2.9	1.43	1.43	10	1.58
78-83-1	Isobutyl alcohol	yes								
78-93-3	Methyl Ethyl Ketone	yes				4			1	
872-50-4	1-Methyl-2-Pyrrolidone									
9002-93-1	Octylphenoxypoly Ethanol									
9004-70-0	Cellulose Nitrate				7.19	10			10	
94108-97-1	Acrylate Oligomer									
947-19-3	1-Hydroxycyclohexyl phenyl ketone									
95-63-6	1-2-4 trimethylbenzene	yes				0.3			0.3	
96-29-7	Methyl Ethyl Ketoxime					4.60				
98-56-6	p-Chlorobenzotrifluoride									
98-82-8	Cumene	yes								
00-00-0	Volatile total			73.3	74.7	58.5	49.5	49.5	62.5	41.1
00-00-0	Solids			26.7	25.3	41.5	50.5	50.5	57.6	58.9
00-00-0	non-exempt VOC			63.3	35.7	58.5	49.5	49.5	37.5	32.4
	Lb per gl			7.58	7.51	8.71	9.03	9.03	8.28	8.88
2019 usage	Gallons			7800	3900	870	780	780	870	870
	Weight			59116.20	29289.00	7577.70	7039.50	7039.50	7203.60	7726.47
	Total Voc			29679.00	10456.17	4432.95	3481.74	3481.74	2701.35	2506.35
	VOC per gl			3.81	2.68	5.10	4.46	4.46	3.11	2.88
CAS #	Ingredient			Pro Precat Satin Clear	Vinyl BRE	Hi-Build Kit White	White Precat Primer	Gray Precat Primer	Graphite	Pro Precat Satin White
	Manufacturer			Rodda	Sherwin	Sherwin	Rodda	Rodda	Sherwin	Rodda
		TAP	HAP	95460020	T77FV20	T77HXW10913	95472100	??	T77HXA12911	95475120
00-00-0	Volatile total			43355.82	21878.88	4432.95	3481.74	3481.74	4502.25	3178.56
00-00-0	Solids PM2.5			15760.38	7410.12	3144.75	3557.76	3557.76	4149.27	4547.91
00-00-0	non-exempt VOC			37444.20	10456.17	4432.95	3481.74	3481.74	2701.35	2506.35
50-00-0	**Formaldehyde**	**CAR T yes**		**0.00**	**0.00**	**1.06**	**0.00**	**0.00**	**1.01**	**1.08**
64-17-5	Ethanol Alcohol	yes		0.00	2217.18	606.22	878.11	878.11	720.36	772.65
67-56-1	Methanol	yes	yes	5911.62	0.00	151.55	140.80	140.80	0.00	366.00

67-63-0	2-Propanol	yes		0.00	1013.40	227.33	0.00	0.00	288.14	0.00
67-64-1	Acetone	yes		17734.86	11419.78	0.00	0.00	0.00	360.18	672.21
71-36-3	1- Butanol	yes		2955.81	0.00	454.66	0.00	0.00	360.18	0.00
78-83-1	Isobutyl alcohol	yes		0.00	0.00	0.00	0.00	0.00	0.00	0.00
78-93-3	Methyl Ethyl Ketone	yes		0.00	0.00	303.11	0.00	0.00	72.04	0.00
95-63-6	1-2-4 trimethylbenzene	yes		0.00	0.00	22.73	0.00	0.00	21.61	0.00
98-82-8	Cumene	yes	yes	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100-41-4	Ethylbenzene	yes	yes	0.00	0.00	0.00	0.00	0.00	0.00	0.00
107-98-2	Methoxy 2-propanol	yes		0.00	0.00	0.00	0.00	0.00	0.00	0.00
108-65-6	1-Methoxy 2-Propanol Acetate	yes		0.00	834.74	454.66	0.00	0.00	432.22	0.00
108-88-3	Toluene	yes	yes	2955.81	0.00	106.09	1091.05	1091.05	72.04	434.54
111-76-2	2-Butoxyethanol	yes		0.00	0.00	0.00	0.00	0.00	0.00	0.00
123.42-2	Diacetone Alcohol	yes		0.00	0.00	0.00	0.00	0.00	0.00	0.00
123-86-4	n-Butyl Acetate	yes		17734.86	5494.62	1818.65	1136.81	1136.81	1872.94	1406.29
136-52-7	Cobalt 2-Ethylhexanoate	maybe	yes	0.00	0.00	0.00	0.00	0.00	0.00	0.00
141-78-6	Ethyl Acetate	yes		0.00	0.00	0.00	0.00	0.00	0.00	0.00
1330-20-7	Xylene	yes	yes	17734.86	0.00	22.73	0.00	0.00	21.61	23.18
1332-58-7	Kaolin	yes		0.00	0.00	0.00	0.00	0.00	0.00	0.00
1333-86-4	Carbon Black	Yes		0.00	0.00	0.00	0.00	0.00	72.04	0.00
7631-86-8	Amorphous Silica	yes		0.00	0.00	227.33	0.00	0.00	216.11	0.00
14808-60-7	Crystalline Silica, powder	yes		0.00	0.00	0.00	0.00	0.00	0.00	0.00
15956-58-8	Manganese 2-Ethylhexanoate	yes	yes	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1047-16-1	Quinacridone			0.00	0.00	0.00	0.00	0.00	0.00	0.00
108-10-1	4-methylpentan-2-one			0.00	0.00	0.00	0.00	0.00	0.00	0.00
108-32-7	4-Methyl 1.3-Dioxolan 2-one			0.00	0.00	0.00	0.00	0.00	0.00	0.00
108-67-8	1-3-5 Trimethylbenzene			0.00	0.00	0.00	0.00	0.00	0.00	0.00
117-81-7	bis(2-ethylhexl)hthalate			2955.81	0.00	0.00	133.73	133.73	0.00	177.72
119-61-9	Benzophenome			0.00	0.00	0.00	0.00	0.00	0.00	0.00
1245638-61-2	2-Propenic Acid			0.00	0.00	0.00	0.00	0.00	0.00	0.00
12713-03-0	Umber			0.00	0.00	0.00	0.00	0.00	0.00	0.00
1309-37-1	Iron Oxide			0.00	0.00	0.00	0.00	0.00	0.00	0.00
13463-67-7	Titanium Dioxide			0.00	0.00	1894.43	0.00	0.00	360.18	0.00
136-51-6	Calcium 2-Ethylhexanoate			0.00	0.00	0.00	0.00	0.00	0.00	0.00
14807-96-7	Talc			0.00	0.00	0.00	0.00	0.00	0.00	0.00
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate			0.00	0.00	0.00	0.00	0.00	0.00	0.00
1569-01-3	Propoxy 2-propanol			0.00	0.00	0.00	0.00	0.00	0.00	0.00
28961-43-5	Timethylolpropane Ethoxylate Triacrylate			0.00	0.00	0.00	0.00	0.00	0.00	0.00
526-73-8	1,2,3-Trimethylbenzene			0.00	0.00	0.00	0.00	0.00	0.00	0.00
64742-478	Light Aliphatic Hydrocarbon			0.00	0.00	0.00	0.00	0.00	0.00	0.00
64742-48-9	Heavy Petroleum Naphtha/Mineral Spirits			0.00	0.00	0.00	0.00	0.00	0.00	0.00
64742-52-5	Heavy Naphthenic Petroleum Oil			0.00	0.00	0.00	0.00	0.00	0.00	0.00
64742-82-1	heavy aliphatic Solvent			0.00	0.00	0.00	0.00	0.00	21.61	0.00
64742-88-7	Med. Aliphatic hydrocarbon Solvent			0.00	0.00	0.00	0.00	0.00	0.00	0.00
64742-89-8	Lt Aliphatic Hydrocarbon Solvent			0.00	0.00	0.00	0.00	0.00	0.00	0.00
64742-95-6	Light Aromatic hydrocarbons			0.00	0.00	22.73	0.00	0.00	21.61	0.00
68002-18-6	Isobutylated urea-Formaldehyde Polymer			0.00	374.90	227.33	0.00	0.00	216.11	0.00

68186-41-4	Phosphoric Acid Ester Salt			0.00	0.00	0.00	0.00	0.00	0.00	0.00
70657-70-4	2-Methoxy-1-Prppanol Acetate			0.00	0.00	0.00	0.00	0.00	0.00	0.00
71-23-8	Propan-1-oL			0.00	0.00	0.00	0.00	0.00	0.00	0.00
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide			0.00	0.00	0.00	0.00	0.00	0.00	0.00
78-83-1	2- Methyl 1-propanol			2955.81	676.58	219.75	101.01	101.01	720.36	121.79
872-50-4	1-Methyl-2-Pyrrolidone			0.00	0.00	0.00	0.00	0.00	0.00	0.00
9002-93-1	Octylphenoxypoly Ethanol			0.00	0.00	0.00	0.00	0.00	0.00	0.00
9004-70-0	Cellulose Nitrate			0.00	2105.88	757.77	0.00	0.00	720.36	0.00
94108-97-1	Acrylate Oligomer			0.00	0.00	0.00	0.00	0.00	0.00	0.00
947-19-3	1-Hydroxycyclohexyl phenyl ketone			0.00	0.00	0.00	0.00	0.00	0.00	0.00
96-29-7	Methyl Ethyl Ketoxime			0.00	0.00	348.57	0.00	0.00	0.00	0.00
98-56-6	p-Chlorobenzotrifluoride			0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 3-1: Paint Room Emission Calculations

CAS #	Ingredient	Panda White	5 Degree Black	Coffee	Autumn	Delight Maple	Honey Maple	BLACK LACQUER	Red Provincial	Crown Cherry
	Manufacturer	Sherwin	Sherwin	Sherwin	Gemini	Gemni	Minwax	Sherwin	Sherwin	Sherwin
		T77HXW9174	T77HXB3174	S67WXN9539	3910	4193	272	T77HXB2688	S64SBN12439	S64XXN5498
100-41-4	Ethylbenzene					0.66				0.29
1047-16-1	Quinacridone									2.27
107-98-2	Methoxy 2-propanol									
108-10-1	4-methylpentan-2-one									
108-32-7	4-Methyl 1.3-Dioxolan 2-one									
108-65-6	1-Methoxy 2-Propanol Acetate	6	6					6		
108-67-8	1-3-5 Trimethylbenzene								1	
108-88-3	Toluene	1.4					0.23			
111-76-2	2-Butoxyethanol									
117-81-7	bis(2-ethylhexl)hthalate									
119-61-9	Benzophenome									
123.42-2	Diacetone Alcohol									3.81
123-86-4	n-Butyl Acetate	24	30					29		
1245638-61-2	2-Propenic Acid									
12713-03-0	Umber									
1309-37-1	Iron Oxide								10	
1330-20-7	Xylene	0.3				2.54			1	1.67
1332-58-7	Kaolin								3	
1333-86-4	Carbon Black		3	3	0.55	0.89		1	0.3	0.67
13463-67-7	Titanium Dioxide	25								
136-51-6	Calcium 2-Ethylhexanoate						0.21		0.3	
136-52-7	Cobalt 2-Ethylhexanoate									0.11
141-78-6	Ethyl Acetate									
14807-96-7	Talc									
14808-60-7	Crystalline Silica, powder								0.3	0.69
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate									
1569-01-3	Propoxy 2-propanol									
15956-58-8	Manganese 2-Ethylhexanoate									
28961-43-5	Timethylolpropane Ethoxylate Triacrylate									
50-00-0	Formaldehyde	0.014	0.014					0.014		
526-73-8	1,2,3-Trimethylbenzene								0.3	
64-17-5	Ethanol Alchol	8	6					7		1.05
64742-47-8	Light Aliphatic Hydrocarbon Solvent						49.92		68	3.36
64742-48-9	Heavy Petroleum Naphtha/Mineral Spirits				25.00	11.47				
64742-82-1	heavy aliphatic Solvent		0.3					0.3		
64742-88-7	Med. Aliphatic hydrocarbon Solvent						6.01	1	0.3	40.68
64742-89-8	Lt Aliphatic Hydrocarbon Solvent								3	1.18
64742-95-6	Light Aromatic hydrocarbons	0.3	0.3		0.55	68.45		0.3	1	
64742-52-5	Heavy Naphthenic Petroleum Oil						15.09			
67-56-1	Methanol	2				0.54				

Table 3-1: Paint Room Emission Calculations

67-63-0	2-Propanol	3	4					4		
67-64-1	Acetone		6.4	10				7.9		
68002-18-6	Isobutylated urea-Formaldehyde Polymer	3	3					3		
68186-41-4	Phosphoric Acid Ester Salt								2.7	
70657-70-4	2-Methoxy-1-Prppanol Acetate									
71-23-8	Propan-1-oL									
71-36-3	1- Butanol	6	4					4		
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide									
7631-86-9	Amorphous Silica	3	3							
78-83-1	2- Methyl 1-propanol	3	7			0.02		7		
78-83-1	Isobutyl alcohol									
78-93-3	Methyl Ethyl Ketone	4								
872-50-4	1-Methyl-2-Pyrrolidone						0.16			
9002-93-1	Octylphenoxypoly Ethanol									
9004-70-0	Cellulose Nitrate	10	10					10		
94108-97-1	Acrylate Oligomer									
947-19-3	1-Hydroxycyclohexyl phenyl ketone									
95-63-6	1-2-4 trimethylbenzene	0.3	0.3					0.3	2	
96-29-7	Methyl Ethyl Ketoxime								0.3	0.31
98-56-6	p-Chlorobenzotrifluoride									
98-82-8	Cumene								0.3	
00-00-0	Volatile total	58.5	65.3	97.5	74.96	68.45	72.55	66.5	76.3	53.8
00-00-0	Solids	41.5	34.2	2.5	25.04	31.55	27.45	33.5	23.7	46.2
00-00-0	non-exempt VOC	58.5	58.9	0.0	73.45	68.45	72.55	58.6	76.3	53.5
	Lb per gl	8.72	8.01	8.13	8.04	7.42	7.15	7.93	7.26	8.62
2019 usage	Gallons	58	261	312	234	39	78	87	117	39
	Weight	505.76	2090.61	2536.56	1881.01	289.38	557.70	689.91	849.42	336.18
	Total Voc	295.87	1231.37	0.00	1381.54	198.08	404.61	404.29	648.11	179.86
	VOC per gl	5.10	4.72	0.00	5.90	5.08	5.19	4.65	5.54	4.61
CAS #	Ingredient	Panda White	5 Degree Black	Coffee	Autumn	Delight Maple	Honey Maple	BLACK LACQUER	Red Provincial	Crown Cherry
	Manufacturer	Sherwin	Sherwin	Sherwin	Gemini	Gemni	Minwax	Sherwin	Sherwin	Sherwin
		T77HXW9174	T77HXB3174	S67WXN9539	3910	4193	272	T77HXB2688	S64SBN12439	S64XXN5498
00-00-0	Volatile total	295.87	1365.17	2473.15	1409.97	198.08	404.61	458.79	648.11	180.86
00-00-0	Solids PM2.5	209.89	714.36	63.41	471.04	91.30	153.09	231.12	201.31	155.32
00-00-0	non-exempt VOC	295.87	1231.37	0.00	1381.54	198.08	404.61	404.29	648.11	179.86
50-00-0	**Formaldehyde**	**0.07**	**0.29**	**0.00**	**0.00**	**0.00**	**0.00**	**0.10**	**0.00**	**0.00**
64-17-5	Ethanol Alcohol	40.46	125.44	0.00	0.00	0.00	0.00	48.29	0.00	3.53
67-56-1	Methanol	10.12	0.00	0.00	0.00	1.56	0.00	0.00	0.00	0.00

67-63-0	2-Propanol	15.17	83.62	0.00	0.00	0.00	0.00	27.60	0.00	0.00
67-64-1	Acetone	0.00	133.80	253.66	0.00	0.00	0.00	54.50	0.00	0.00
71-36-3	1- Butanol	30.35	83.62	0.00	0.00	0.00	0.00	27.60	0.00	0.00
78-83-1	Isobutyl alcohol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78-93-3	Methyl Ethyl Ketone	20.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95-63-6	1-2-4 trimethylbenzene	1.52	6.27	0.00	0.00	0.00	0.00	2.07	16.99	0.00
98-82-8	Cumene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.55	0.00
100-41-4	Ethylbenzene	0.00	0.00	0.00	0.00	1.91	0.00	0.00	0.00	0.97
107-98-2	Methoxy 2-propanol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108-65-6	1-Methoxy 2-Propanol Acetate	30.35	125.44	0.00	0.00	0.00	0.00	41.39	0.00	0.00
108-88-3	Toluene	7.08	0.00	0.00	0.00	0.00	1.28	0.00	0.00	0.00
111-76-2	2-Butoxyethanol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
123.42-2	Diacetone Alcohol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.81
123-86-4	n-Butyl Acetate	121.38	627.18	0.00	0.00	0.00	0.00	200.07	0.00	0.00
136-52-7	Cobalt 2-Ethylhexanoate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37
141-78-6	Ethyl Acetate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1330-20-7	Xylene	1.52	0.00	0.00	0.00	7.35	0.00	0.00	8.49	5.61
1332-58-7	Kaolin	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.48	0.00
1333-86-4	Carbon Black	0.00	62.72	76.10	10.35	2.58	0.00	6.90	2.55	2.25
7631-86-8	Amorphous Silica	15.17	62.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14808-60-7	Crystalline Silica, powder	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.55	2.32
15956-58-8	Manganese 2-Ethylhexanoate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1047-16-1	Quinacridone	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.63
108-10-1	4-methylpentan-2-one	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108-32-7	4-Methyl 1.3-Dioxolan 2-one	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108-67-8	1-3-5 Trimethylbenzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.49	0.00
117-81-7	bis(2-ethylhexl)hthalate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
119-61-9	Benzophenome	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1245638-61-2	2-Propenic Acid	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12713-03-0	Umber	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1309-37-1	Iron Oxide	0.00	0.00	0.00	0.00	0.00	0.00	0.00	84.94	0.00
13463-67-7	Titanium Dioxide	126.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
136-51-6	Calcium 2-Ethylhexanoate	0.00	0.00	0.00	0.00	0.00	1.17	0.00	2.55	0.00
14807-96-7	Talc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1569-01-3	Propoxy 2-propanol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28961-43-5	Timethylolpropane Ethoxylate Triacrylate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
526-73-8	1,2,3-Trimethylbenzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.55	0.00
64742-478	Light Aliphatic Hydrocarbon	0.00	0.00	0.00	0.00	0.00	278.40	0.00	577.61	11.30
64742-48-9	Heavy Petroleum Naphtha/Mineral Spirits	0.00	0.00	0.00	470.25	33.19	0.00	0.00	0.00	0.00
64742-52-5	Heavy Naphthenic Petroleum Oil	0.00	0.00	0.00	0.00	0.00	84.16	0.00	0.00	0.00
64742-82-1	heavy aliphatic Solvent	0.00	6.27	0.00	0.00	0.00	0.00	2.07	0.00	0.00
64742-88-7	Med. Aliphatic hydrocarbon Solvent	0.00	0.00	0.00	0.00	0.00	33.52	6.90	2.55	136.76
64742-89-8	Lt Aliphatic Hydrocarbon Solvent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.48	3.97
64742-95-6	Light Aromatic hydrocarbons	1.52	6.27	0.00	10.35	198.08	0.00	2.07	8.49	0.00
68002-18-6	Isobutylated urea-Formaldehyde Polymer	15.17	62.72	0.00	0.00	0.00	0.00	20.70	0.00	0.00

68186-41-4	Phosphoric Acid Ester Salt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.93	0.00
70657-70-4	2-Methoxy-1-Prppanol Acetate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71-23-8	Propan-1-oL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78-83-1	2- Methyl 1-propanol	15.17	146.34	0.00	0.00	0.06	0.00	48.29	0.00	0.00
872-50-4	1-Methyl-2-Pyrrolidone	0.00	0.00	0.00	0.00	0.00	0.89	0.00	0.00	0.00
9002-93-1	Octylphenoxypoly Ethanol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9004-70-0	Cellulose Nitrate	50.58	209.06	0.00	0.00	0.00	0.00	68.99	0.00	0.00
94108-97-1	Acrylate Oligomer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
947-19-3	1-Hydroxycyclohexyl phenyl ketone	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96-29-7	Methyl Ethyl Ketoxime	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.55	1.04
98-56-6	p-Chlorobenzotrifluoride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 3-1: Paint Room Emission Calculations

CAS #	Ingredient	Self Seal UV	White Base UV	DRE - UV	Genll Primer Water - White						
	Manufacturer	Canlak	Canlak	Sherwin	Sherwin						
		SG-02-47	AB-17-16	V86FH643	E64W522						
100-41-4	Ethylbenzene	1	1								
1047-16-1	Quinacridone										
107-98-2	Methoxy 2-propanol										
108-10-1	4-methylpentan-2-one	20									
108-32-7	4-Methyl 1.3-Dioxolan 2-one										
108-65-6	1-Methoxy 2-Propanol Acetate										
108-67-8	1-3-5 Trimethylbenzene										
108-88-3	Toluene	20	30								
111-76-2	2-Butoxyethanol										
117-81-7	bis(2-ethylhexl)hthalate										
119-61-9	Benzophenome			1.04							
123.42-2	Diacetone Alcohol										
123-86-4	n-Butyl Acetate	40	40								
1245638-61-2	2-Propenic Acid			8.34							
12713-03-0	Umber										
1309-37-1	Iron Oxide										
1330-20-7	Xylene	5	5								
1332-58-7	Kaolin				25.00						
1333-86-4	Carbon Black										
13463-67-7	Titanium Dioxide		10		25.00						
136-51-6	Calcium 2-Ethylhexanoate										
136-52-7	Cobalt 2-Ethylhexanoate										
141-78-6	Ethyl Acetate										
14807-96-7	Talc				25.00						
14808-60-7	Crystalline Silica, powder				0.30						
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate	1	1	0.11							
1569-01-3	Propoxy 2-propanol										
15956-58-8	Manganese 2-Ethylhexanoate										
28961-43-5	Timethylolpropane Ethoxylate Triacrylate			0.58							
50-00-0	Formaldehyde										
526-73-8	1,2,3-Trimethylbenzene										
64-17-5	Ethanol Alchol										
64742-47-8	Light Aliphatic Hydrocarbon Solvent										
64742-48-9	Heavy Petroleum Naphtha/Mineral Spirits										
64742-82-1	heavy aliphatic Solvent										
64742-88-7	Med. Aliphatic hydrocarbon Solvent										
64742-89-8	Lt Aliphatic Hydrocarbon Solvent										
64742-95-6	Light Aromatic hydrocarbons										
64742-52-5	Heavy Naphthenic Petroleum Oil										
67-56-1	Methanol										

Table 3-1: Paint Room Emission Calculations

67-63-0	2-Propanol										
67-64-1	Acetone										
68002-18-6	Isobutylated urea-Formaldehyde Polymer										
68186-41-4	Phosphoric Acid Ester Salt										
70657-70-4	2-Methoxy-1-Prppanol Acetate										
71-23-8	Propan-1-oL										
71-36-3	1- Butanol										
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide		5								
7631-86-9	Amorphous Silica										
78-83-1	2- Methyl 1-propanol										
78-83-1	Isobutyl alcohol										
78-93-3	Methyl Ethyl Ketone										
872-50-4	1-Methyl-2-Pyrrolidone										
9002-93-1	Octylphenoxypoly Ethanol										
9004-70-0	Cellulose Nitrate										
94108-97-1	Acrylate Oligomer			2.96							
947-19-3	1-Hydroxycyclohexyl phenyl ketone			1.04							
95-63-6	1-2-4 trimethylbenzene										
96-29-7	Methyl Ethyl Ketoxime										
98-56-6	p-Chlorobenzotrifluoride										
98-82-8	Cumene										
00-00-0	Volatile total	65.9	65.3	65.90	35.80						
00-00-0	Solids	34.1	34.7	34.10	64.20						
00-00-0	non-exempt VOC	65.9	65.3	1.20	0.00						
	Lb per gl	12.64	10.00	8.73	12.64						
2019 usage	Gallons	1560	2340	1950	1560	24505					
	Weight	19718.40	23400.00	17023.50	19718.40	214589					
	Total Voc	12990.48	15282.54	204.28	0.00	214589.05			60%	Graco HVLP transfer efficie	
	VOC per gl	8.33	6.53	0.10	0.00				86%	Kremlin HVLP transfer effi	
									290%	Growth Factor for the orig	
CAS #	Ingredient	Self Seal UV	White Base UV	DRE - UV	GenII Primer Water - White				290%	Growth factor for non-forr	
	Manufacturer	Canlak	Canlak	Sherwin	Sherwin				2132	hrs/yr operations	
		SG-02-47	AB-17-16	V86FH643	E64W522	Total (lbs)	HAP Total (lbs)	TAP Total (lbs)	TAP lbs/hr	TAP EL (lbs/hr)	TAP lbs/hr w/95% abatement
00-00-0	Volatile total	12990.48	15282.54	11218.49	7059.19	**138297.25**					
00-00-0	Solids PM2.5	6727.92	8117.46	5805.01	12659.21	**77728.39**					
00-00-0	non-exempt VOC	12990.48	15282.54	204.28	0.00	**97725.53**					
50-00-0	**Formaldehyde**	**0.00**	**0.00**	**0.00**	**0.00**	**3.61**	3.61	3.61	0.00041	0.00051	
64-17-5	Ethanol Alcohol	0.00	0.00	0.00	0.00	6290.34		6290.34	2.95	125	
67-56-1	Methanol	0.00	0.00	0.00	0.00	6722.46	6722.46	6722.46	3.15	17.3	

67-63-0	2-Propanol	0.00	0.00	0.00	0.00	1655.27		1655.27	0.78	65.3	
67-64-1	Acetone	0.00	0.00	0.00	0.00	30628.99		30628.99	14.37	119	
71-36-3	1- Butanol	0.00	0.00	0.00	0.00	3912.22		3912.22	1.83	10	
78-83-1	Isobutyl alcohol	0.00	0.00	0.00	0.00	0.00		0.00	0	10	
78-93-3	Methyl Ethyl Ketone	0.00	0.00	0.00	0.00	395.37		395.37	0.185	39.3	
95-63-6	1-2-4 trimethylbenzene	0.00	0.00	0.00	0.00	71.19		71.19	0.0334	8.2	
98-82-8	Cumene	0.00	0.00	0.00	0.00	2.55	2.55	2.55	0.0012	16.3	
100-41-4	Ethylbenzene	197.18	234.00	0.00	0.00	434.07	434.07	434.07	0.20	29	
107-98-2	Methoxy 2-propanol	0.00	0.00	0.00	0.00	0.00		0.00	0.00	24	
108-65-6	1-Methoxy 2-Propanol Acetate	0.00	0.00	0.00	0.00	1918.79		1918.79	0.90	24	
108-88-3	Toluene	3943.68	7020.00	0.00	0.00	16722.62	16722.62	16722.62	7.84	25	
111-76-2	2-Butoxyethanol	0.00	0.00	0.00	0.00	0.00		0.00	0	8	
123.42-2	Diacetone Alcohol	0.00	0.00	0.00	0.00	12.81		12.81	0.006	16	
123-86-4	n-Butyl Acetate	7887.36	9360.00	0.00	0.00	48796.97		48796.97	22.9	47.3	
136-52-7	Cobalt 2-Ethylhexanoate	0.00	0.00	0.00	0.00	0.37	0.37	0.37	0.000173	0.0033	0.00001
141-78-6	Ethyl Acetate	0.00	0.00	0.00	0.00	0.00		0.00	0	93.3	
1330-20-7	Xylene	985.92	1170.00	0.00	0.00	19981.28	19981.28	19981.28	9.37	29	
1332-58-7	Kaolin	0.00	0.00	0.00	4929.60	4955.08		1982.03	0.9297	0.133	0.0465
1333-86-4	Carbon Black	0.00	0.00	0.00	0.00	235.47		94.19	0.044	0.23	0.002
7631-86-8	Amorphous Silica	0.00	0.00	0.00	0.00	521.33		208.53	0.098	0.67	0.005
14808-60-7	Crystalline Silica, powder	0.00	0.00	0.00	59.16	64.02		64.02	0.0300	0.0067	0.00150
15956-58-8	Manganese 2-Ethylhexanoate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.333	
1047-16-1	Quinacridone	0.00	0.00	0.00	0.00	7.63					
108-10-1	4-methylpentan-2-one	3943.68	0.00	0.00	0.00	3943.68					
108-32-7	4-Methyl 1.3-Dioxolan 2-one	0.00	0.00	0.00	0.00	0.00					
108-67-8	1-3-5 Trimethylbenzene	0.00	0.00	0.00	0.00	8.49		Sample Calculations:			
117-81-7	bis(2-ethylhexl)hthalate	0.00	0.00	0.00	0.00	3400.99					
119-61-9	Benzophenome	0.00	0.00	177.04	0.00	177.04		tons/yr of PM2.5 from Rodda Pro Precat Satin Clear			
1245638-61-2	2-Propenic Acid	0.00	0.00	1419.76	0.00	1419.76					
12713-03-0	Umber	0.00	0.00	0.00	0.00	0.00		8400 gal/yr * 7.58 lbs/gal * 61% solids * (1-60% transfer e			
1309-37-1	Iron Oxide	0.00	0.00	0.00	0.00	84.94					
13463-67-7	Titanium Dioxide	0.00	2340.00	0.00	4929.60	9650.65		lbs/hr of PM2.5 from Rodda Pro Precat Satin Clear			
136-51-6	Calcium 2-Ethylhexanoate	0.00	0.00	0.00	0.00	3.72					
14807-96-7	Talc	0.00	0.00	0.00	4929.60	4929.60		8400 gal/yr * 7.58 lbs/gal * 61% solids * (1-60% transfer e			
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate	197.18	234.00	18.73	0.00	449.91					
1569-01-3	Propoxy 2-propanol	0.00	0.00	0.00	0.00	0.00					
28961-43-5	Timethylolpropane Ethoxylate Triacrylate	0.00	0.00	98.74	0.00	98.74					
526-73-8	1,2,3-Trimethylbenzene	0.00	0.00	0.00	0.00	2.55					
64742-478	Light Aliphatic Hydrocarbon	0.00	0.00	0.00	0.00	867.31					
64742-48-9	Heavy Petroleum Naphtha/Mineral Spirits	0.00	0.00	0.00	0.00	503.44					
64742-52-5	Heavy Naphthenic Petroleum Oil	0.00	0.00	0.00	0.00	84.16					
64742-82-1	heavy aliphatic Solvent	0.00	0.00	0.00	0.00	29.95					
64742-88-7	Med. Aliphatic hydrocarbon Solvent	0.00	0.00	0.00	0.00	179.72					
64742-89-8	Lt Aliphatic Hydrocarbon Solvent	0.00	0.00	0.00	0.00	29.45					
64742-95-6	Light Aromatic hydrocarbons	0.00	0.00	0.00	0.00	271.12					
68002-18-6	Isobutylated urea-Formaldehyde Polymer	0.00	0.00	0.00	0.00	916.93					

68186-41-4	Phosphoric Acid Ester Salt	0.00	0.00	0.00	0.00	22.93					
70657-70-4	2-Methoxy-1-Prppanol Acetate	0.00	0.00	0.00	0.00	0.00					
71-23-8	Propan-1-oL	0.00	0.00	0.00	0.00	0.00					
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	0.00	1170.00	0.00	0.00	1170.00					
78-83-1	2- Methyl 1-propanol	0.00	0.00	0.00	0.00	5106.18					
872-50-4	1-Methyl-2-Pyrrolidone	0.00	0.00	0.00	0.00	0.89					
9002-93-1	Octylphenoxypoly Ethanol	0.00	0.00	0.00	0.00	0.00					
9004-70-0	Cellulose Nitrate	0.00	0.00	0.00	0.00	3912.64					
94108-97-1	Acrylate Oligomer	0.00	0.00	503.90	0.00	503.90					
947-19-3	1-Hydroxycyclohexyl phenyl ketone	0.00	0.00	177.04	0.00	177.04					
96-29-7	Methyl Ethyl Ketoxime	0.00	0.00	0.00	0.00	352.16					
98-56-6	p-Chlorobenzotrifluoride	0.00	0.00	0.00	0.00	0.00					

Table 3-1: Paint Room Emission Calculations

CAS #	Ingredient									
	Manufacturer									
100-41-4	Ethylbenzene									
1047-16-1	Quinacridone									
107-98-2	Methoxy 2-propanol									
108-10-1	4-methylpentan-2-one									
108-32-7	4-Methyl 1.3-Dioxolan 2-one									
108-65-6	1-Methoxy 2-Propanol Acetate									
108-67-8	1-3-5 Trimethylbenzene									
108-88-3	Toluene									
111-76-2	2-Butoxyethanol									
117-81-7	bis(2-ethylhexl)hthalate									
119-61-9	Benzophenome									
123.42-2	Diacetone Alcohol									
123-86-4	n-Butyl Acetate									
1245638-61-2	2-Propenic Acid									
12713-03-0	Umber									
1309-37-1	Iron Oxide									
1330-20-7	Xylene									
1332-58-7	Kaolin									
1333-86-4	Carbon Black									
13463-67-7	Titanium Dioxide									
136-51-6	Calcium 2-Ethylhexanoate									
136-52-7	Cobalt 2-Ethylhexanoate									
141-78-6	Ethyl Acetate									
14807-96-7	Talc									
14808-60-7	Crystalline Silica, powder									
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate									
1569-01-3	Propoxy 2-propanol									
15956-58-8	Manganese 2-Ethylhexanoate									
28961-43-5	Timethylolpropane Ethoxylate Triacrylate									
50-00-0	Formaldehyde									
526-73-8	1,2,3-Trimethylbenzene									
64-17-5	Ethanol Alchol									
64742-47-8	Light Aliphatic Hydrocarbon Solvent									
64742-48-9	Heavy Petroleum Naphtha/Mineral Spirits									
64742-82-1	heavy aliphatic Solvent									
64742-88-7	Med. Aliphatic hydrocarbon Solvent									
64742-89-8	Lt Aliphatic Hydrocarbon Solvent									
64742-95-6	Light Aromatic hydrocarbons									
64742-52-5	Heavy Naphthenic Petroleum Oil									
67-56-1	Methanol									

Table 3-1: Paint Room Emission Calculations

67-63-0	2-Propanol									
67-64-1	Acetone									
68002-18-6	Isobutylated urea-Formaldehyde Polymer									
68186-41-4	Phosphoric Acid Ester Salt									
70657-70-4	2-Methoxy-1-Prppanol Acetate									
71-23-8	Propan-1-oL									
71-36-3	1- Butanol									
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide									
7631-86-9	Amorphous Silica									
78-83-1	2- Methyl 1-propanol									
78-83-1	Isobutyl alcohol									
78-93-3	Methyl Ethyl Ketone									
872-50-4	1-Methyl-2-Pyrrolidone									
9002-93-1	Octylphenoxypoly Ethanol									
9004-70-0	Cellulose Nitrate									
94108-97-1	Acrylate Oligomer									
947-19-3	1-Hydroxycyclohexyl phenyl ketone									
95-63-6	1-2-4 trimethylbenzene									
96-29-7	Methyl Ethyl Ketoxime									
98-56-6	p-Chlorobenzotrifluoride									
98-82-8	Cumene									
00-00-0	Volatile total									
00-00-0	Solids									
00-00-0	non-exempt VOC									
	Lb per gl									
2019 usage	Gallons									
	Weight									
	Total Voc	ncy								
	VOC per gl	iency (UV coatings)								
		nal amount of formaldehyde-containing coatings: Hi-Bild White, Graphite, Satin White, Panda White, Black Lacquer								
CAS #	Ingredient	naldehyde containing coatings								
	Manufacturer									
		% of EL	Criteria BRC t/yr	Criteria BRC lb/hr	Criteria t/yr	Criteria t/yr w/95% abatement	Criteria lb/hr	Criteria lb/hr w/95% abatement		
00-00-0	Volatile total									
00-00-0	Solids PM2.5		1	0.23	12.9	0.643	2.94	0.147		
00-00-0	non-exempt VOC		4	0.91	48.9	48.9	11.2	11.2		
50-00-0	**Formaldehyde**	81%								
64-17-5	Ethanol Alcohol	2%								
67-56-1	Methanol	18%								

67-63-0	2-Propanol	1%									
67-64-1	Acetone	12%									
71-36-3	1- Butanol	18%									
78-83-1	Isobutyl alcohol	0%									
78-93-3	Methyl Ethyl Ketone	0%									
95-63-6	1-2-4 trimethylbenzene	0%									
98-82-8	Cumene	0%									
100-41-4	Ethylbenzene	1%									
107-98-2	Methoxy 2-propanol	0%									
108-65-6	1-Methoxy 2-Propanol Acetate	4%									
108-88-3	Toluene	31%									
111-76-2	2-Butoxyethanol	0%									
123.42-2	Diacetone Alcohol	0%									
123-86-4	n-Butyl Acetate	48%									
136-52-7	Cobalt 2-Ethylhexanoate	0.3%									
141-78-6	Ethyl Acetate	0%									
1330-20-7	Xylene	32%									
1332-58-7	Kaolin	35%									
1333-86-4	Carbon Black	1%									
7631-86-8	Amorphous Silica	1%									
14808-60-7	Crystalline Silica, powder	22%									
15956-58-8	Manganese 2-Ethylhexanoate	0%									
1047-16-1	Quinacridone										
108-10-1	4-methylpentan-2-one										
108-32-7	4-Methyl 1.3-Dioxolan 2-one										
108-67-8	1-3-5 Trimethylbenzene										
117-81-7	bis(2-ethylhexl)hthalate										
119-61-9	Benzophenome										
1245638-61-2	2-Propenic Acid										
12713-03-0	Umber	ficiency) * (1-95% filter efficiency) / 2000 lbs/ton = 0.39 tons/yr									
1309-37-1	Iron Oxide										
13463-67-7	Titanium Dioxide										
136-51-6	Calcium 2-Ethylhexanoate										
14807-96-7	Talc	ficiency) * (1-95% filter efficiency) / 8760 hrs/yr = 0.09 tons/yr									
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate										
1569-01-3	Propoxy 2-propanol										
28961-43-5	Timethylolpropane Ethoxylate Triacrylate										
526-73-8	1,2,3-Trimethylbenzene										
64742-478	Light Aliphatic Hydrocarbon										
64742-48-9	Heavy Petroleum Naphtha/Mineral Spirits										
64742-52-5	Heavy Naphthenic Petroleum Oil										
64742-82-1	heavy aliphatic Solvent										
64742-88-7	Med. Aliphatic hydrocarbon Solvent										
64742-89-8	Lt Aliphatic Hydrocarbon Solvent										
64742-95-6	Light Aromatic hydrocarbons										
68002-18-6	Isobutylated urea-Formaldehyde Polymer										

68186-41-4	Phosphoric Acid Ester Salt									
70657-70-4	2-Methoxy-1-Prppanol Acetate									
71-23-8	Propan-1-oL									
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide									
78-83-1	2- Methyl 1-propanol									
872-50-4	1-Methyl-2-Pyrrolidone									
9002-93-1	Octylphenoxypoly Ethanol									
9004-70-0	Cellulose Nitrate									
94108-97-1	Acrylate Oligomer									
947-19-3	1-Hydroxycyclohexyl phenyl ketone									
96-29-7	Methyl Ethyl Ketoxime									
98-56-6	p-Chlorobenzotrifluoride									

Tables 4-1a to 4-1d:
Facility-Wide NSR Regulated Pollutant Emissions

Table 4-1a: Pre-Project Potential to Emit (based on existing permit conditions)

Emissions Unit	$PM_{2.5}$	PM_{10}	SO_2	NO_2	CO	CO_2e	VOC	Lead
	tons/yr							
Natural Gas	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.000000
BOOTHS	0.00	0.00	0.000	0.00	0.00	0.00	13.50	0.000000
Total =	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**13.50**	**0.000000**

Table 4-1b: Post-Project Potential to Emit (based on requested permit conditions)

Emissions Unit	$PM_{2.5}$	PM_{10}	SO_2	NO_2	CO	CO_2e	VOC	Lead
	tons/yr							
Natural Gas	0.051	0.051	4.0E-03	0.67	0.57	805.24	0.037	3.4E-06
BOOTHS	0.643	0.643	0	0	0	0	48.86	0
Total =	**0.694**	**0.694**	**0.004**	**0.67**	**0.57**	**805.24**	**48.9**	**3.4E-06**

Table 4-1c: Changes in Potential to Emit

Emissions Unit	$PM_{2.5}$	PM_{10}	SO_2	NO_2	CO	CO_2e	VOC	Lead
	tons/yr							
Natural Gas	0.051	0.051	4.0E-03	0.67	0.57	805.24	0.037	3.4E-06
BOOTHS	0.643	0.643	0	0	0	0	35.363	0.000000
Total =	**0.694**	**0.694**	**0.004**	**0.67**	**0.57**	**805.24**	**35.4**	**3.4E-06**

Table 4-1d: Criteria Sums

Criteria Air Pollut-ants	PTE Emissions		Significance Threshold		Below Regulatory Concern	
	lb/hr	T/yr	T/yr	Exceed?	T/yr	Exceed?
NO_2	0.15	0.67	40	No	4	No
CO	0.13	0.57	100	No	10	No
PM_{10}	0.159	0.69	15	No	1.5	No
$PM_{2.5}$	0.159	0.69	10	No	1	No
SO_2	9.2E-04	4.0E-03	40	No	4	No
VOC	11.16	48.9	40	YES	4	YES
Lead	3.4E-06	3.4E-06	0.6	No	0.06	No
	5.5E-04	lb/month				
Total Criteria Emissions (ton/yr) =		**50.84**				

Not emitted, wood dust, exhaust recirculated back into room air:

From: Oregon DEQ AQ-EF02 - Emission Factors Wood Products - Baghouse Control with Cyclone - Sanderdust, 2011
https://www.oregon.gov/deq/FilterPermitsDocs/AQ-EF02.pdf

0.04 Pounds of PM per Bone dry ton of throughput
9300 Pounds of sawdust collected per day
5 Days per week
52 Weeks per year
1209 Tons of throughput per year
0.186 Pounds of PM emitted to the room air per year
48.36 Pounds of PM emitted to the room air per day

Table 4-2:
Facility-Wide Toxic Air Pollutant Emissions

Non-Carcinogenic Toxic Air Pollutant (24 hr Average)	CAS	Controlled Hourly Emissions		Emission Change (lb/hr)	Screening Emission Level (lb/hr)	Exceeds Screening Emission Level?
		Pre-Project (lb/hr)	Post Project (lb/hr)			
Ethanol	64-17-5	0.83	2.950	2.120	125	No
2-Propanol	67-63-0	0	0.776	0.776	65	No
Acetone	67-64-1	0	14.366	14.366	119	No
1-Butanol	71-36-3	0	1.835	1.835	10	No
2-Methyl-1-propanol	78-83-1	0	0.000	0.000	10	No
MEK	78-93-3	0.83	0.185	-0.645	39	No
Methyl Methacrylate	80-62-6	0	0.000	0.000	27	No
Naphthalene	91-20-3	0	0.0000009	0.000	3	No
Cumene	98-82-8	0	0.0012	0.001	16	No
Ethylbenzene	100-41-4	0	0.204	0.204	29	No
1-Methoxy-2-propanol	107-98-2	0	0.000	0.000	24	No
Methyl Isobutyl Ketone	108-10-1	2.08	0.000	-2.080	14	No
Isopropyl Acetate	108-21-4	0.42	0.000	-0.420	69	No
1-Methoxy-2-Propanol Acetate	108-65-6	0	0.900	0.900	24	No
Toluene	108-88-3	0	7.844	7.844	25	No
Pentane	109-66-0	0	0.0040	0.004	118	No
Hexane	110-54-3	0	0.0028	0.003	12	No
Ethylene Glycol Monoethyl Ether Acetate	111-15-9	0.42	0.0000	-0.420	1.08	No
2-Butoxyethanol	111-76-2	0	0.000	0.000	8	No
Diacetone Alcohol	123-42-2	0	0.0060	0.006	16	No
n-Butyl Acetate	123-86-4	0	22.888	22.9	47	No
Xylene	1330-20-7	5.93	9.372	3.442	29	No
Carbon Black	1333-86-4	0	0.002	0.002	0.23	No
Manganese	7439-96-5	0	5.85E-07	0.000	0.07	No
Molybdenum	7439-98-7	0	1.69E-06	0.000	0.33	No
Barium	7440-39-3	0	6.77E-06	0.000	0.03	No
Chromium	7440-47-3	0	2.15E-06	0.000	0.03	No
Cobalt	7440-48-4	0	1.29E-07	0.000	0.00	No
Copper	7440-50-8	0	1.31E-06	0.000	0.01	No
Zinc	7440-66-6	0	4.46E-05	0.000	0.67	No
Selenium	7782-49-2	0	3.69E-08	0.000	0.01	No
Carcinogenic Toxic Air Pollutant (Annual Average)	**CAS**	**Controlled Hourly Emissions**		**Emission Change (lb/hr)**	**Screening Emission Level (lb/hr)**	**Exceeds Screening Emission Level?**
		Pre-Project (lb/hr)	**Post Project (lb/hr)**			
Formaldehyde	50-00-0	0	4.1E-04	4.1E-04	5.1E-04	No
Benzo(a)pyrene	50-32-8	0	1.8E-09	1.8E-09	2.0E-06	No
3-Methylchloranthene	56-49-5	0	2.8E-09	2.8E-09	2.5E-06	No
Benzene	71-43-2	0	3.2E-06	3.2E-06	8.0E-04	No
Arsenic	7440-38-2	0	3.1E-07	3.1E-07	1.5E-06	No
Beryllium	7440-41-7	0	1.8E-08	1.8E-08	2.8E-05	No
Cadmium	7440-43-9	0	1.7E-06	1.7E-06	3.7E-06	No
Nickel	7440-02-0	0	3.2E-06	3.2E-06	2.7E-05	No
Polyaromatic Hydrocarbon (Max)		0	2.0E-06	2.0E-06	9.1E-05	No
Polycyclic Organics: 7-PAH Group		0	1.8E-08	1.8E-08	2.0E-06	No

Table 4-3:
Facility-Wide Hazardous Air Pollutant Emissions

Hazardous Air Pollutant	CAS	Potential to Emit (tons/yr)
Arsenic	7440-38-2	1.3E-06
Benzene	71-43-2	1.4E-05
Beryllium	7440-41-7	8.1E-08
Cadmium	7440-43-9	7.4E-06
Chromium	7440-47-3	9.4E-06
Cobalt	7440-48-4	5.7E-07
Cobalt 2-Ethylhexanoate	136-52-7	1.8E-04
Cumene	98-82-8	1.3E-03
Dichlorobenzene	25321-22-6	8.1E-06
Ethylbenzene	100-41-4	0.22
Formaldehyde	50-00-0	2.3E-03
Hexane	110-54-3	0.012
Lead	7439-92-1	3.4E-06
Manganese	7439-96-5	2.6E-06
Mercury	7439-97-6	1.8E-06
Methanol	67-56-1	3.36
Methyl Isobutyl Ketone	108-10-1	0.00
Methyl Methacrylate	80-62-6	0.00
o-Cresol	95-48-7	0.000
Naphthalene	91-20-3	4.1E-06
Nickel	7440-02-0	1.4E-05
Polycyclic Organic Matter		8.7E-06
Selenium	7782-49-2	1.6E-07
Toluene	108-88-3	8.36
Triethylamine	121-44-8	0.00
Xylene	1330-20-7	9.99
TOTAL =		**21.9**

APPENDIX B – FACILITY DRAFT COMMENTS

The following comments were received from the facility on September 10, 2019:

Facility Comment:
It is not practicable for the permittee to lump a month's worth of usage into one day for compliance purposes, so we request that all references to a "month" in the scenario framework be removed to reduce confusion.

DEQ Response: Facility request granted, the option of creating coating scenarios for a month of time has been removed to reduce confusion.

Facility Comment:
This section appears to imply that annual averaging of a monthly scenario can be used to demonstrate TAP compliance, which we wholeheartedly support. IF so, then monthly scenarios would work for the permittee, and the request to remove references to it can be ignored. However, it is in contradiction with the sentence above section 2.6 which requires an entire month's worth of emissions to be lumped into a single day, which does not work for Sonbyrd. Please clarify.

DEQ Response: Facility request granted. This paragraph has been removed because it incorrectly addresses TAP compliance that other sections cover.

Facility Comment:
Daily checks seem onerous and unnecessary; many facilities only check visible emissions once per quarter. Given that the estimated PM2.5 emissions are only 0.2 lbs per hour, that particulates are controlled with 99.43% efficient filters, and that this Section requires proper operation and maintenance, we request visible emission checks no more frequently than quarterly.

DEQ Response: Facility request granted.

Facility Comment:
Sonbyrd requests that since it is a duplication of the efforts involved in sections 2.8 and 2.9 and is therefore unnecessary, the contents of section 2.15 be removed. If the permittee is following the limits of a scenario for the day as specified in section 2.16, and that scenario has been demonstrated to have emissions below all applicable limits as specified in sections 2.8 and 2.9, it follows that the emissions for that day or month will automatically be below applicable limits. In their application, Sonbyrd requested an "emissions-based" permit to gain operational flexibility, but the introduction of the scenario-based permit framework makes the emissions-based framework unnecessary while affording the applicant the required flexibility.

DEQ Response: This recordkeeping requirement is included to prove that the actual usage of the materials meets the requirements of the selected coating scenario. The scenario is chosen and approved by showing the estimated emissions will be under the emission limits. Then the coating process occurs and usage is recorded to prove that the actual usage didn't exceed the scenario chosen.

Facility Comment:
It is not clear how a scenario becomes "approved", aside from the analyses specified in 2.8 and 2.9. Please clarify.

DEQ Response: To clarify, the language was changed from "approved" to "submitted" scenarios. Scenarios will be checked by the analyses specified in 2.8 and 2.9 but they also need to be submitted to DEQ to ensure compliance with the permit limits.

Facility Comment:
Please clarify if the "scenario" represented by the values in the permit application emission inventory is tacitly "approved".

DEQ Response: The values in the application emission inventory are not an approved scenario. The values need to be based on a 24-hour period for the scenario to demonstrate compliance with the permit conditions.

Facility Comment:
Please clarify if it can it be assumed by the permittee that once a scenario is reported and a sufficient time has passed that the scenario is "approved". Will DEQ notify the permittee that the scenario is approved?

DEQ Response: DEQ will not notify the permittee that a scenario is approved. The scenario can be assumed approved if DEQ does not respond to the scenario report submitted.

Facility Comment:
Since therms is the billing unit on the permittee's natural gas bills, we recommend using that as the limit value unit. It is also more accurate since it takes into account the high heating value of the gas. 1 therm = 100,000 BTU. Total facility duty = 1,570,000 BTU/hr x 8760 hr/yr ÷ 100000 BTU/therm = 137,500 therms/yr.

DEQ Response: Facility request granted.

Facility Comment:
Since the wood shaping equipment is indoors and the exhaust from the baghouse is vented back into the building and emits only 0.186 lbs. of PM2.5 per day, and since we know of no other permits in this industrial sector with indoor sawdust sources and emissions that require visible emissions monitoring, and since a procedures document is required and will be developed, we request that the visible emissions monitoring requirement in this section be deleted.

DEQ Response: Facility request denied. Visible emissions monitoring for baghouses is required, no matter the situation, to ensure the equipment is appropriately working.

Facility Comment:
Two of the paint spray booths are open-faced spray booths where the operator stands in the opening and the vent fans pull the fumes into the enclosure (see photos in the appendix of the application). Since they do not have doors, this should have a conditional wording added such as the above suggestion.

DEQ Response: Facility request granted.

Facility Comment:
While Sonbyrd does not anticipate using coatings with any target metal HAPs, this should not be a permit requirement since the coating portion of Subpart HHHHHH does not apply to Sonbyrd's coating operation. HHHHHH only applies to facilities that "Perform spray application of coatings, as defined in § 63.11180, to motor vehicles and mobile equipment including operations that are located in stationary structures at fixed locations, and mobile repair and refinishing operations that travel to the customer's location" and "Perform spray application of coatings that contain the target HAP, as defined in § 63.11180, to a plastic and/or metal substrate on a part or product". Since Sonbyrd only sprays coatings on stationary wooden parts, HHHHHH cannot apply simply for the reason of using target HAP and this permit condition should be vacated.

DEQ Response: Facility request granted.

Facility Comment:

We proposed that Section 2.15 Recordkeeping should simply require that Sonbyrd log daily material use amounts and compare those against the material use amounts listed in the Scenario. Since the Scenario calculates emissions and compares the emissions to criteria pollutant, TAP and HAP limits, Section 2.15 Recordkeeping need only include daily material use amounts compared against the maximum material use amounts listed in the Scenario. Section 2.15 does not need to include calculations of emissions as it is superfluous.

DEQ Response: Facility request granted. Usage has to be compared to the selected scenario amounts to demonstrate compliance.

Facility Comment:

Section 2.6 seems to require estimating daily emissions of PM10/PM2.5, VOCs and HAPs. Yet, Section 2.9 correctly points to annual limits. We suggest that Section 2.6 be modified to clarify that only estimating annual emission of criteria pollutants is necessary. Related to this, we also propose that Table 2.2 only include the annual criteria limits and the hourly limits be removed as they are irrelevant.

DEQ Response: Facility request granted.

Facility Comment:

We propose that the Section 2.2 VOC limit be increased from 48.86 tons/year to 70 tons/year. The Emission Inventory submitted with our application is based on current materials and material use. Although Sonbyrd anticipates that future coatings will have lower VOC content rather than higher, it is possible that future coatings may exhibit higher VOC content while lower PM, TAPs and HAPs. Increasing the VOC limit to 70 tons/year would clearly comply with synthetic minor criteria pollutant standards (e.e., less than 100 tons/year). This would offer a little more flexibility to Sonbyrd, enable Sonbyrd to propose a new Scenario with future coatings that complies with PM, VOC, TAP and HAP standards, and help avoid the potential necessity of a future permit modification simply to raise the VOC limit in the future.

DEQ Response: Facility request granted. This allows for new coatings with varying VOC contents to be added through appropriate scenario recordkeeping while staying below any major thresholds.

APPENDIX C – PROCESSING FEE

PTC Processing Fee Calculation Worksheet

Instructions:
Fill in the following information and answer the following questions with a Y or N. Enter the emissions increases and decreases for each pollutant in the table.

Company: Sonbyrd Industries Inc
Address: 1963 HWY 52 W
City: Emmett
State: ID
Zip Code: 83617
Facility Contact: Earl DeFur
Title: Owner
AIRS No.: 045-00005

N Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N

Y Did this permit require engineering analysis? Y/N

N Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO_X	0.7	0	0.7
SO_2	0.0	0	0.0
CO	0.6	0	0.6
PM10	0.7	0	0.7
VOC	50.0	0	50.0
Total:	0.0	0	**52.0**
Fee Due	**$ 5,000.00**		

Comments: